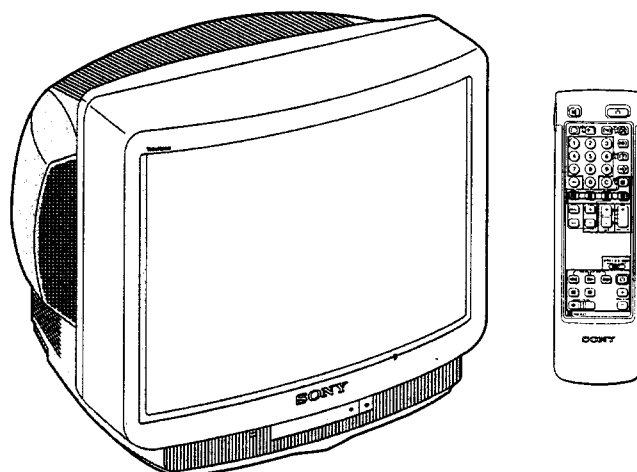


SERVICE MANUAL

BE-3B CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
<i>KV-X2501D</i>	<i>RM-833</i>	<i>AEP</i>	<i>SCC-G77A-A</i>	<i>KV-X2503E</i>	<i>RM-833</i>	<i>Spanish</i>	<i>SCC-G82A-A</i>
<i>KV-X2501A</i>	<i>RM-833</i>	<i>Italian</i>	<i>SCC-G81A-A</i>	<i>KV-X2502L</i>	<i>RM-833</i>	<i>IRISH</i>	<i>SCC-G83A-A</i>
<i>KV-X2500B</i>	<i>RM-833</i>	<i>French</i>	<i>SCC-G85A-A</i>	<i>KV-X2502U</i>	<i>RM-833</i>	<i>UK</i>	<i>SCC-G87A-A</i>
<i>KV-X2501B</i>	<i>RM-833</i>	<i>French</i>	<i>SCC-G84A-A</i>	<i>KV-X2501K</i>	<i>RM-833</i>	<i>OIRT</i>	<i>SCC-G86B-A</i>



TRINITRON® COLOR TV
SONY®

ITEM MODEL	Television System	Stereo System	Channel Coverage	Color System
AEP	B/G/H, D/K	GERMAN Stereo	PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Italian	B/G/H, D/K	GERMAN Stereo	ITALIA VHF:A-H2 (C) UHF: 21-69 PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
French	B/G/H, D/K L, I	GERMAN Stereo	L VHF:F02-F10 UHF:F21-F60 CABLE:B-Q B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 I UHF:B21-B69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Spanish	B/G/H, D/K	GERMAN/NICAM Stereo	PAL B/G VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Irish	I	NICAM Stereo	VHF A-C, D-J, VHF 21-69 CABLE CHANNELS S1-S20 HYPERBAND S21-S41	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
UK	I	NICAM Stereo	UHF : B21-B69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
OIRT	B/G/H, D/K	GERMAN Stereo	B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)

MODEL	AEP	Italian	French Text	French Non Text	Spanish	Irish	UK	OIRT
Power Consumption	99W	99W	99Wh	99W	99W	137W	137W	99W

SPECIFICATIONS

Picture Tube Hi-Black Trinitron
Approx. 63 cm (25 inches)
(Approx. 60 cm picture measured diagonally)
110° -deflection

Input/Output Terminals

[REAR]

- ②-1 21-pin Euro connector (CENELEC standard)
 - inputs for audio and video signals
 - inputs for RGB
 - outputs of TV video and audio signals
- ②-2/②-3 2 21-pin Euro connector
 - inputs for audio and video signals
 - inputs for S video
 - outputs for audio and video signals (selectable)

[FRONT]

- ⊖3 Video input - phono jack
- ⊖3 Audio inputs - phono jacks
- ⊖3S video input 4-pin DIN
- Ω Headphone jacks : stereo minijack
- Sound output 2 x 20W (Music power)
- Power requirements 220 - 240V
- Dimensions Approx. 575x500x487 mm
- Weight Approx. 33kg
- Supplied accessories RM-833 Remote Commander (1)
IEC designation R6 battery (1)
- Other features NICAM , FASTEXT, TOPTEXT.

[RM-833]

- Remote control system infrared control
- Power requirements 1.5V dc
1 battery IEC designation R6 (size AA)
- Dimensions Approx. 65x225x21 mm (w/h/d)
- Weight Approx. 157g (Not including batteries)

Design and specifications are subject to change without notice

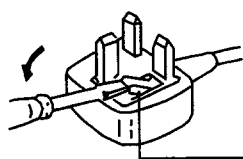
Model name Item	KV-X2501D	KV-X2501A	KV-X2500B	KV-X2501B	KV-X2503E	KV-X2502L	KV-X2502U	KV-X2501K
Pal Comb	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
PIP	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
RGB Priority	OFF	ON	ON	ON	OFF	OFF	OFF	OFF
Woofer Box	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Scart 1	ON	ON	ON	ON	ON	ON	ON	ON
Scart 2	ON	ON	ON	ON	ON	ON	ON	ON
Front in (3)	ON	ON	ON	ON	ON	ON	ON	ON
Scart 4	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Projector	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
AKB in 16:9 mode	ON	ON	ON	ON	ON	ON	ON	ON
Norm B/G	ON	ON	ON	ON	ON	OFF	ON	ON
Norm I	OFF	OFF	OFF	OFF	ON	ON	ON	OFF
Norm D/K	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON
Norm AUS	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Norm L	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF
Norm SAT	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Norm M	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Teletext	ON	ON	OFF	ON	ON	ON	ON	ON
Nicam Stereo	OFF	OFF	OFF	OFF	ON	ON	ON	OFF
Language Preset	Deutsch	Italian	French	French	Spanish	English	English	OIRT

WARNING (KV-X2502L / KV-X2502U only)

The flexible mains lead is supplied connected to a **B.S. 1363** fused plug having a fuse of **5 AMP** capacity. Should the fuse need to be replaced, use a **5 AMP FUSE** approved by **ASTA** to **BS 1362**, ie one that carries the  mark.

IF THE PLUG SUPPLIED WITH THIS APPLIANCE IS NOT SUITABLE FOR YOUR SOCKET OUTLETS IN YOUR HOME. IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED. THE PLUG SEVERED FROM THE MAINS LEAD MUST BE DESTROYED AS A PLUG WITH BARED WIRES IS DANGEROUS IF ENGAGED IN A LIVE SOCKET OUTLET.

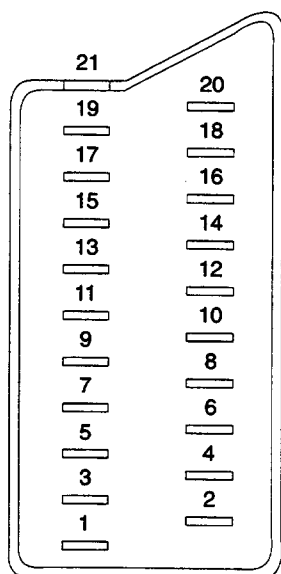
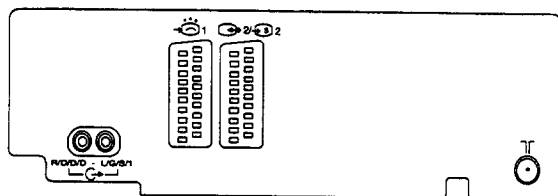
When an alternative type of plug is used it should be fitted with a **5 AMP FUSE**, otherwise the circuit should be protected by a **5 AMP FUSE** at the distribution board.



FUSE

How to replace the fuse.
Open the fuse compartment with the screwdriver blade and replace the fuse.

21 pin connector (1 2 / 4)



Pin No.	1	2	4	Signal	Signal level
1	○	○	○	Audio output B (right)	Standard level : 0.5V rms Output impedance : Less than 1kohm*
2	○	○	○	Audio input B (right)	Standard level : 0.5V rms Output impedance : More than 10kohm*
3	○	○	○	Audio output A (left)	Standard level : 0.5V rms Output impedance : Less than 1kohm*
4	○	○	○	Ground (audio)	
5	○	○	○	Ground (blue)	
6	○	○	○	Audio input A (left)	Standard level : 0.5V rms Output impedance : More than 10kohm*
7	○	●	●	Blue input	0.7 ± 3dB, 75 ohms, positive
8	○	○	○	Function select (AV control)	High state (9.5 - 12V) : Part mode Low state (0 - 2V) : TV mode Input impedance : More than 10k ohms Input capacitance : Less than 2nF
9	○	○	○	Ground (green)	
10	○	○	○	Open	
11	○	●	●	Green	Green signal : 0.7 ± 3dB, 75 ohms, positive
12	○	○	○	Open	
13	○	○	○	Ground (red)	
14	○	○	○	Ground (blanking)	
15	○	—	—	Red input	0.7 ± 3dB, 75 ohms, positive
	—	○	○	(S signal) chroma input	0.3 ± 3dB, 75 ohms, positive
16	○	●	●	Blanking input (Ys signal)	High state (1 - 3V) Low state (0 - 0.4V) Input impedance : 75ohms
17	○	○	○	Ground (video output)	
18	○	○	○	Ground (video input)	
19	○	○	○	Video output	1V ± 3dB, 75ohms, positive sync: 0.3V (-3+10dB)
20	○	—	—	Video input	1V ± 3dB, 75ohms, positive sync: 0.3V (-3+10dB)
	—	○	○	Video input Y (S signal)	1V ± 3dB, 75ohms, positive sync: 0.3V (-3+10dB)
21	○	○	○	Common ground (plug, shield)	

○ Connected ● Not Connected (open) * at 20Hz - 20kHz

Pin No	Signal	Signal level
1	Ground	
2	Ground	
3	Y (S signal) input	1V ± 3dB 75 ohm , positive Sync. 0.3V -3/+10 dB
4	C (S signal) input	0.3V ± 3dB 75 ohm , positive Sync.

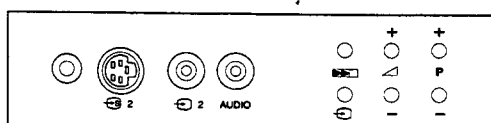


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CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVAL OF THE ANODE CAP.

WARNING !!

AN ISOLATING TRANSFORMER SHOULD BE USED DURING ANY SERVICE WORK TO AVOID POSSIBLE SHOCK HAZARD, DUE TO A LIVE CHASSIS. THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARKED  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLIMENTS PUBLISHED BY SONY.

ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION !!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENTION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ !!

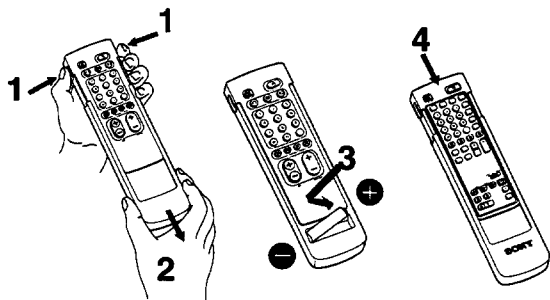
LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE  SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIÈCES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT, NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1 GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

Getting Started

Inserting the Battery Into the Remote Commander



Remove the cover.

Check the correct polarity.

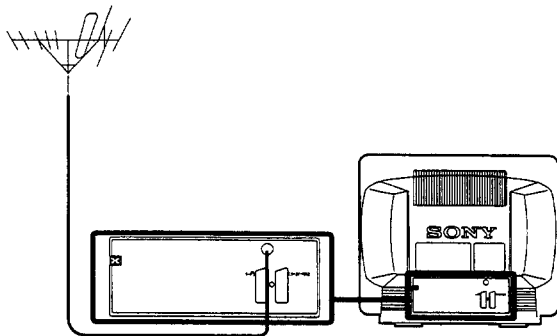
Refit the outside cover making sure that the Full Function side is visible.

About Battery Life

Under normal operation, a battery will last up to half a year.

Connecting the Aerial

Connect aerial to the Π socket at the rear of the TV. (cable not supplied)



Choosing a Language

(See inside of front cover and back cover)

1 Depress A on the TV.
The TV turns on. If the standby indicator B on the TV is lit, press C or any number button D on the Remote Commander.

2 Press MENU E on the Remote Commander.
The SELECT LANGUAGE screen appears.

MENU

3 Press one of the colour buttons F on the Remote Commander to select a language (Press the white button F to display other language alternatives). The SELECT LANGUAGE screen clears and all subsequent menus appear in the chosen language.

SELECT LANGUAGE

- ENGLISH
- DEUTSCH
- FRANÇAIS
- ITALIANO
- MORE

SELECT COL. BUTTON

Note: From the second time when you turn on the TV, the MENU screen appears instead of the SELECT LANGUAGE screen. Press the yellow button F then press the white button F to redisplay the SELECT LANGUAGE screen.

Tuning in to Channels

You can tune in up to 60 channels to programme positions either automatically or manually.

auto tuning: A single button press allows all receivable channels to be tuned. Use if you are unfamiliar with the channel numbers of stations.

manual tuning: Use if you are familiar with the channel numbers of stations.

Choose the more appropriate way for you.

Tuning in to Channels Automatically

There are two possibilities for auto tuning:

A. On the TV: hold down G H on the front of the TV for 2 seconds

or

B. On the Remote Commander: as follows

1 Press MENU I .

2 Press the white button J .

3 Hold down the red button K for 2 seconds,

Note: Press the green button L to cancel.

Tuning in to Channels Manually

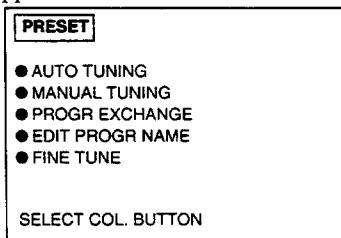
1 Press MENU [7].

The MENU screen appears.



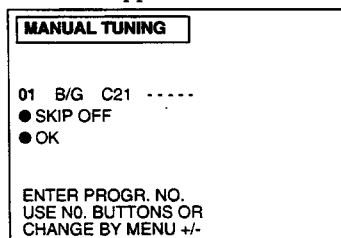
2 Press the white button [17] to select PRESET.

The PRESET screen appears.



3 Press the green button [17] to select MANUAL TUNING.

The MANUAL TUNING screen appears.



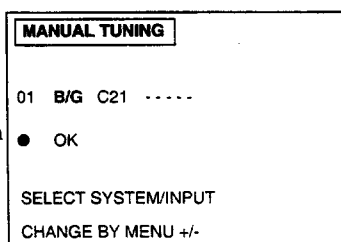
4 Press the number buttons [4] or MENU+/- [9] to select a programme position.

If you use the number buttons [4], enter a double-digit number. (e.g. for programme number 4, first press 0, then 4)

5 Press the green button [17].

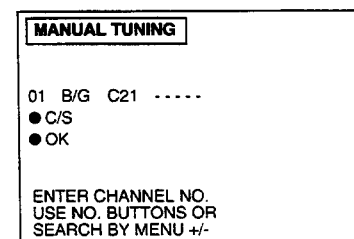
Note: Use MENU +/- [9] to select TV system. You can alternatively select input sources which may be assigned to programme positions. The display changes as follows:

B/G ↔ D/K ↔ AV1 ↔ RGB ↔ AV2 ↔ YC2 ↔ AV3 ↔ YC3



6 Press the green button [17].

Note: If a video input source is selected in step 5, this is now stored. Refer to step 4 to tune other programme positions.



7 When you have selected B/G, press the red button [17] to select C (regular channel) or S (cable channel).

8 Press the number buttons [4] or MENU+/- [9] to select the channel number.

If you use the number buttons [4], enter a double-digit number. (e.g. for channel 23, first press 2, then 3)

9 Press the green button [17] to store.

Note: If you want to preset other channels, repeat steps 4 to 9.

10 Press MENU [7] twice to return to the normal screen.

Note: You can skip unused programme positions when selecting programmes with the PROGR +/- buttons [18]. Press the red button [17] to skip in step 4. However, the skipped programmes may still be called up when you use the number buttons.

Basic TV Operations

Turning the TV on and off

Turning on

Depress [A] on the TV.

Turning off temporarily

Press [10] on the Remote Commander.

The TV enters standby mode and the standby indicator [B] on the front of the TV lights up.

Turning on again

Press [3], PROGR +/- [18], or one of the number buttons [4] on the Remote Commander.

Turning off completely

Depress [A] on the TV.

Note: It is recommended to use [A] to turn off the TV. This could help you save energy.

Selecting TV Programmes

Press PROGR +/- [18] or press number buttons [4].

To select a double-digit number

Press -/- [5], then the number buttons [4].

Adjusting the Volume

Press [19].

Muting the Sound

Press [1].

To resume normal sound, press [1] again.

Displaying the On-screen Indications

Press [14] once to display the on-screen indications.

Press again to make the indications disappear.

Operating the TV Using the Buttons on the TV

With the buttons on the TV, you can adjust or select the functions as follows:

Press [19] to adjust the volume.

Press P +/- [C] to select programme numbers or to turn the TV on from the standby mode.

Press [F] to select the input source.

Press [E] to preset channels automatically.

Advanced TV Operations

Operating the Menu System

You can adjust picture and sound, preset channels to programme positions and utilise other convenient features by using the following menu system.

Press;	to;
1 MENU  	enter the MENU screen
2 a colour button  	select an item you want to change (The selected item is marked by a triangle.)
3 MENU+/-   	change (or adjust) the contents of the item
4 MENU 	return to the MENU screen
5 MENU  again	return to the normal screen
Press MENU  once or twice whenever you want to return to the normal screen.	

Note: When selecting menus, the picture becomes darker. If, however, an item in the PICTURE ADJUSTMENT menu is selected, normal level of TV picture is restored to allow the best adjustment.

Adjusting the Picture and Sound

Although picture and sound are adjusted at the factory you can adjust them to suit your own taste.

- 1** Press MENU . The MENU screen appears. 
- 2** Press the red button  to select PICTURE or the green button  to select SOUND.
- 3** Press the respective colour button  to select an item.
- 4** Press MENU +/-  to adjust.
- 5** Press MENU  twice or wait until the menu displays disappear automatically to return to the normal screen.

PICTURE ADJUSTMENT

(First Page)

PICTURE ADJUSTMENT	
▶  	
●  	
●  	
●  	
●  	
● MORE	
SELECT COL. BUTTON ADJUST BY MENU +/-	

Press colour button	Effect
Red: For Picture 	Less — — More
Green: For Colour 	Less — — More
Yellow: For Brightness 	Darker — — Brighter
Blue: For Sharpness 	Softer — — Sharper
White:	Next page of PICTURE ADJUSTMENT

PICTURE ADJUSTMENT

(Second Page)

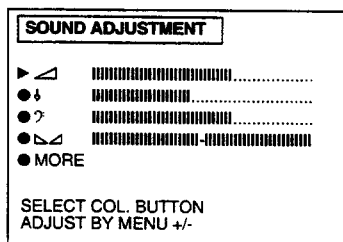
PICTURE ADJUSTMENT	
▶ COLOUR TONE NORMAL	
● NOISE REDUCE ON	
● FORMAT NORMAL	
●  	
● BACK	
SELECT COL. BUTTON CHANGE BY MENU +/-	

Press colour button	Effect
Red: For Colour Tone	Normal -> Warm (reddish colour tone) -> Cool (blueish colour tone)
Green: For Noise Reduce	ON: Reduces picture noise (in case of low signal level) OFF: Normal setting
Yellow: For Format	Normal: Normal setting 16:9 Wide screen effect
Blue: For Hue control   (only for NTSC video signals)	Reddish — — Greenish
White:	Back to first page of PICTURE ADJUSTMENT

Note: Press  on the Remote Commander to reset to the factory preset levels for picture and sound.

SOUND ADJUSTMENT

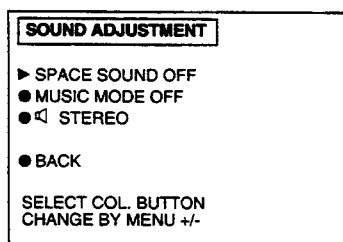
(First Page)



Press colour button	Effect
Red: For Volume	Less ——— More
Green: For Treble	Less ——— More
Yellow: For Bass	Less ——— More
Blue: For Balance	More left - more right
White:	Next page of SOUND ADJUSTMENT

SOUND ADJUSTMENT

(Second Page)



Press colour button	Effect
Red: For Space Sound	OFF: normal sound ON: for a special acoustic sound effect
Green: For Music Mode	OFF: normal sounds ON: when listening to music broadcast
Yellow: For Stereo:	Stereo -> Mono A (left channel) -> Mono B (right channel) -> Mono
White:	Back to first page of SOUND ADJUSTMENT

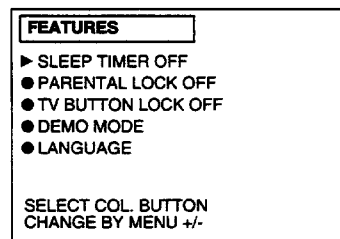
Note: Press ><< [8] on the Remote Commander to reset to the factory preset levels for picture and sound.

Using Special Features

With your TV you can utilise special features such as Parental Lock or Sleep Timer .

- 1 Press MENU [7].
The MENU screen appears.
- 2 Press the yellow button [17] to select FEATURES.
- 3 Press the respective colour button [17] to select an item.
- 4 Press MENU +/- [9] to change.
- 5 Press MENU [7] twice or wait until the menu displays disappear automatically to return to the normal screen.

FEATURES



Press colour button	Effect
Red: For Sleep Timer (Automatic switch off function)	OFF -> 0:30 -> 1:00 -> 1:30 -> 2:00 (hours) After the selected time the TV set switches itself automatically into standby mode.
Green: For Parental Lock (For preventing children from watching programmes which you consider unsuitable)	OFF: Normal setting ON: The TV-channel you are watching is now blocked. In this way you can prevent undesirable broadcasts from appearing on the screen.
Yellow For TV Button Lock	OFF: Normal setting ON: The buttons on the TV do not function anymore. (The Remote Commander still operates)
Blue: For Demo Mode	ON: A sequence of menu pictures is displayed. Press any button on the Remote Commander to stop the function.
White: For Language	The SELECT LANGUAGE screen appears.

Advanced Presetting Functions

Exchanging Programme Positions

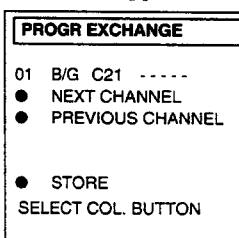
You can exchange the programme positions to a preferred order (example: exchange programme 09 (channel C21) with programme 15 (channel C24)).

- 1 Press **MENU** [7].
The MENU screen appears.



- 2 Press the white button [17].
The PRESET screen appears.

- 3 Press the yellow button [17].
The PROGR EXCHANGE screen appears.



- 4 Press the white button [17] repeatedly until the desired programme number (09) appears.

- 5 Press the red or the green button [17] repeatedly until the desired channel number (C24) appears.

- 6 Press the white button [17] to store.
Now the exchange has been completed. Channel C24 is tuned in to programme 09 and channel C21 is tuned in to programme 15.

- 7 Press **MENU** [7] twice to return to the normal screen.

Editing Programme Names

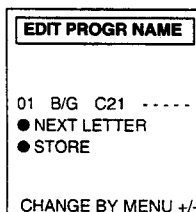
You can edit the programme names up to five letters.

- 1 Press **MENU** [7].
The MENU screen appears.



- 2 Press the white button [17].
The PRESET screen appears.

- 3 Press the blue button [17].
The EDIT PROGR NAME screen appears.
The first character flashes.



- 4 Press **MENU**+/- [9] to edit the first letter.
The first letter changes as follows;

A ↔ B ↔ ... ↔ Z ↔ 0 ↔ 1 ↔ ... ↔ 9 ↔ "-" (space)

- 5 Press the red button [17] to move to the next letter.

- 6 Repeat steps 4 to 5, until the fifth letter is chosen.

- 7 Press the green button [17].
The programme name is stored, and the normal screen appears. To edit another programme name, repeat steps 1 to 7.

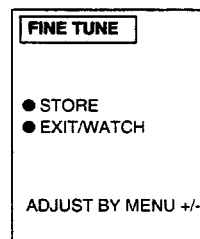
Fine Tuning

You can adjust the receiving condition by the FINE TUNE function.

- 1 Press **MENU** [7].
The MENU screen appears.

- 2 Press the white button [17].
The PRESET screen appears.

- 3 Press the white button [17] again.
The FINE TUNE screen appears.



- 4 Press **MENU**+/- [9] to adjust the receiving condition.

- 5 Press the red button [17] to store the adjustment, or press the green button [17] not to store.
Then the normal screen appears. If you have pressed the green button, the fine tuned condition is cancelled once you choose another programme.

Tuning in to a Channel Temporarily

You can tune in to a channel temporarily, even when it has not been preset.

- 1 Press **C** [16] on the Remote Commander. For cable channels, press **C** [16] twice.
The indicator "C" ("S" for cable channels) appears on the screen.

- 2 Enter a double-digit channel number using the number buttons (e.g. for channel 23, first press 2, then 3).
The channel appears.
However, the channel is not stored.

Teletext Operation

TV stations broadcast teletext programmes via the TV channels. For basic operation of teletext, use the simple side of the Remote Commander. For the advanced features of teletext, use the buttons indicated in green on the full function side of the Remote Commander.

Basic Teletext Operation

Switching Teletext on and off

- 1 Select the channel which carries the teletext service you wish to view.

- 2 Press **[11]** to display Teletext.
If no teletext signal is broadcast, the indication P100 is displayed on a black screen.



- 3 Input three digits for the page number using the number buttons **[4]**.
The numbers are displayed on the screen and the requested page appears in a few seconds.
Note: If you make a mistake, type in any three digits, then re-enter the correct page number.

- 4 Press **[3]** to return to the TV mode.

Note: To change the teletext channels. First press **[3]** to return to the TV mode, then repeat steps 1 to 3.

Note: If the signal of a TV channel is weak, teletext errors may occur.

Advanced Teletext Operation

Using Fastext

With Fastext you can access pages with one button press. When a Fastext page is broadcast, a colour-coded menu will appear at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue buttons **[6]** on the Remote Commander.

Press the corresponding colour button **[6]** on the Remote Commander which corresponds to the colour-coded menu. The page will be displayed in a few seconds.

Requesting the Index page

Press **[17]**. The Index page appears.

Accessing the next or preceding page

Press **[18]** (PAGE +) or **[19]** (PAGE -). The next or the preceding page appears on the screen.

Superimposing the teletext display on the TV picture

Press **[11]** once if you are in text mode or press **[11]** twice if in TV mode.

To return to the normal teletext display press **[11]** again.



Preventing a teletext page from being updated or changed

Press **[2]** (HOLD). The HOLD symbol (**[2]**) appears on the screen and the selected subpage is held until you press **[11]** to cancel.

Enlarging the teletext display

Press **[13]** once to enlarge the upper half. Press twice to enlarge the lower half. Press again to restore the normal display.



Revealing concealed information (e.g. answers to a quiz)

Press **[14]** (REVEAL). The information is revealed. Press **[14]** again to conceal the information.

Watching TV while waiting for a requested page to be displayed

- 1 Request a new teletext page.

- 2 Press **[12]** (TEXT CL).
The TV programme is displayed and the symbol **[12]** is displayed at the top of the page.
Note: When the requested page is available the page number is displayed at the top of the screen.

- 3 Press **[11]** to view the page.

Note: To cancel the request

Display the teletext page, then press **[11]**. The request is now cancelled. Press **[3]** to resume TV mode.

Using the Favourite Page system

You can store up to four of your favourite teletext pages per programme with the help of the Favourite page system. In this way you have quick access to the pages you watch frequently.

Storing the Favourite Pages

- 1 Select the page you would like to store using the number buttons **[4]**.
- 2 Press **[15]** twice.
The colour prompts at the bottom of the screen flash.
- 3 Press any of the colour buttons **[6]** on the Remote Commander to store the selected page.
The page is now stored on this button.

Repeat steps 1 to 3 for the other 3 pages available.

Displaying the Favourite pages

- 1 Press **[15]**.
- 2 Press the colour button **[6]** corresponding to the colour prompt onto which the desired page is stored.
The page is requested. (It may take a few seconds to be received).

Note: Step 1 must be taken before every favourite page selection, otherwise the normal Fastext facility operates.

Using the Time Function in the TV mode

Press **[12]** to request the time. Press again to cancel the request.

Note: This function is available only when teletext is broadcast.

Connecting Other Equipment

You can connect optional audio/video equipment to this TV such as VCRs, video disc players, cameras or stereo systems.

Connector	Acceptable input signal	Available output signal
① M (AV1/RGB)	Audio/video and RGB signal	Audio/video signal from TV Tuner
② L (AV2) (YC2)	Audio/video and S video signal	Audio/video signal from selected source
③ G H (AV3)	Audio/video signal and	No outputs
③ G I (YC3)	Audio/S video signal	

To watch a video input picture, press ② until the desired video input appears.

To return to the normal TV picture, press ② repeatedly or press ③.

Note: If you have a decoder, connect it to ① M.

Connecting a VCR Using the TV Aerial Terminal

Connect the aerial output of the VCR to the aerial terminal K of the TV. It is recommended to tune in the VCR signal to programme number "0". For details, see "Tuning in to Channels Manually" on page 18.

Note: S video input (Y/C input) ① L

Video signals may be separated into Y (luminance or brightness) and C (chrominance) signals. Separating the Y and C signals prevents them from interfering with each other and therefore improves the picture quality (especially luminance). This TV is equipped with 2 video input terminals through which these signals can be input directly.

Checking and Selecting the Input and Output Sources Using the Menu

You can display a menu screen to see which input and output source are selected. You can also change the selection using this menu.

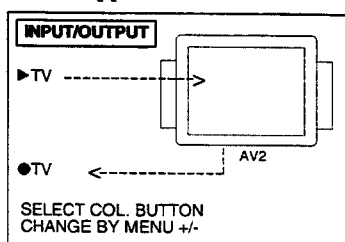
Checking the Input and Output Sources

1 Press MENU ⑦.

The MENU screen appears

2 Press the blue button ⑩ to select INPUT/OUTPUT.

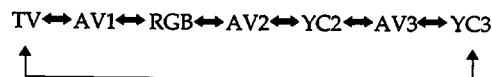
The INPUT/OUTPUT screen appears.



Selecting an Input Signal

Press the red button ⑩ to select INPUT. Press MENU +/- ⑨ to select the desired input source.

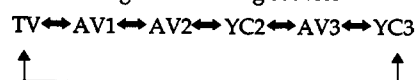
You can select among the following sources:



Selecting an Output Signal

The ② L connector outputs the source input from the other connectors. Press the green button ⑩ to select OUTPUT. Press MENU +/- ⑨ to select the desired output source.

You can select among the following sources:



Note: Press MENU ⑦ twice or wait until the menu displays disappear automatically to return to the normal screen.

Remote Control of Other Sony Equipment

You can use the TV Remote Commander to control most Sony remote-controlled video equipment such as: Beta, 8mm or VHS VCRs or video disc players.

Tuning the Remote Commander to the equipment

1 Set the VTR 1/2/3 MDP selector ② according to the equipment you want to control:

- VTR 1: Beta or VCR
- VTR 2: 8mm VCR
- VTR 3: VHS VCR
- MDP: Video Disc Player

2 Use the buttons ② to operate the additional equipment.

Note: If your video equipment is furnished with a COMMAND MODE selector: set this selector to the same position as the VTR 1/2/3 MDP selector on the TV Remote Commander.

Note: If the equipment does not have a certain function, the corresponding button on the Remote Commander will not operate.

Note: When you use the ● (record) button, make sure to press this button and the one to the right of it simultaneously.

Using Headphones

You can utilise headphones. Connect them to the headphone jack J, then the sound from the speakers goes off.

Note: You can't control the sound adjustment except for volume.

For your information

Troubleshooting

Here are some simple solutions to problems which may affect the picture and sound.

No picture (screen is dark), no sound

- Plug the TV in.
- Press $\odot$ **A** on the TV. (If the standby indicator **B** is lit, press $\square$ **3** or any number button **4** on the Remote Commander.)
- Check if the selected video source is on.
- Turn the TV off for three or four seconds and then turn it on again using $\odot$ **A**.

Poor or no picture (screen is dark), but good sound

- Press MENU **7** to enter the MENU screen, and press the red button **17**, then adjust $\odot$ and $\odot$.

Good picture but no sound

- Press $\triangle$ + **19**.
- If $\times$ is displayed on the screen, press $\times$ **1**.

No colour for colour programmes

- Press MENU **7** to enter the MENU screen, and press the red button **17**, then adjust $\odot$.

Remote Commander does not function

- Replace the battery.

If you continue to have problems, have your TV serviced by qualified personnel. Never open the casing yourself.

Specifications

Television system	B/G/H, D/K
Colour system	PAL, SECAM NTSC 3.58 (video input only) NTSC 4.43 (video input only)
Channel coverage	See "Receivable Channels and Channel Displays"
Picture tube	KV-X2501: Hi-Black Trinitron Approx. 63cm (25 inches) (Approx. 60cm picture measured diagonally) 110° deflection KV-X2901: Hi-Black Trinitron Approx. 72cm (29 inches) (Approx. 68cm picture measured diagonally) 110° deflection
Terminals	$\oplus$ 1 21-pin Euro connector (CENELEC standard) - inputs for audio and video - inputs for RGB - outputs of TV video and audio $\oplus$ 2 / $\oplus$ 2 21-pin Euro connector - inputs for audio and video - inputs for S video - outputs for audio and video (selectable)
Rear	
Front	$\oplus$ 3 Video input-phono jack $\oplus$ 3 Audio input-phono jacks $\oplus$ 3 S video input-4-pin DIN $\cap$ Headphone jack: stereo mini jack
Sound output	2x20W music power

Power consumption KV-X2501: 99W
KV-X2901: 108W

Dimension (WxHxD) KV-X2501
Approx. 575x500x487mm
KV-X2901
Approx. 656x566x518mm

Weight KV-X2501: Approx 33kg
KV-X2901: Approx 45kg

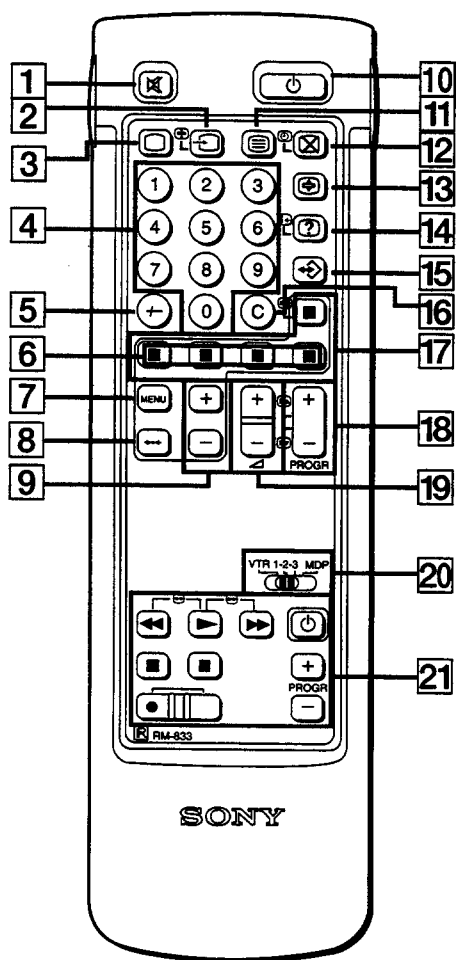
Supplied accessories Remote Commander RM-833,
Battery R6

Other features Fastext/Toptext

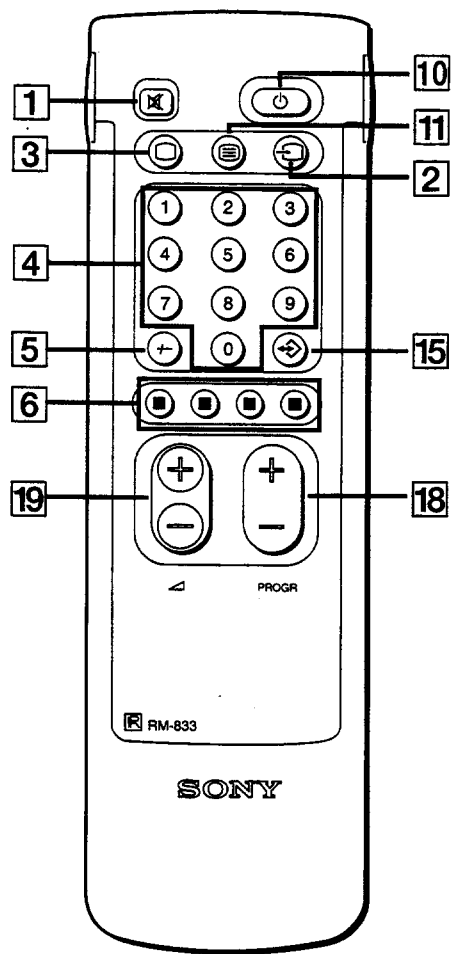
Receivable Channels and Channel Displays

TV System	Receivable Channels	Channel Displays
B/G/H	E2, E3 ... E12 E21, E22 ... E69	C02, C03 ... C12 C21, C22 ... C69
Cable TV(1)	S1, S2 ... S41	S01, S02 ... S41
Cable TV(2)	S01, S02 ... S05 M1, M2 ... M10 U1, U2 ... U10	S42, S43 ... S46 S01, S02 ... S10 S11, S12 ... S20
ITALIA	A, B ... H H1, H2	C13, C14 ... C20 C11, C12
D/K	R01, R02 ... R12 R21, R22 ... R69	C01, C02 ... C12 C21, C22 ... C69

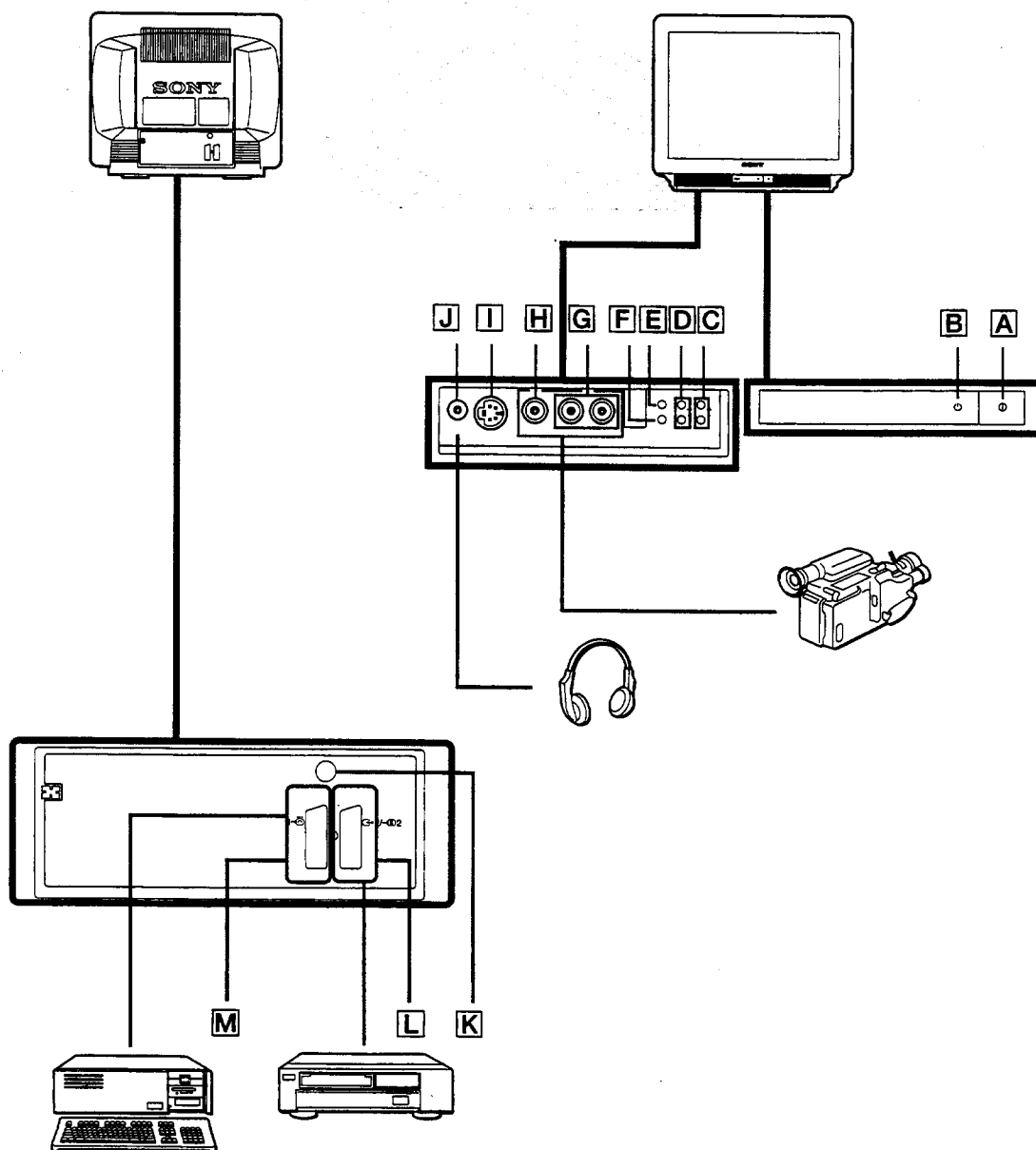
Design and specifications are subject to change without notice.



Full-Function Side

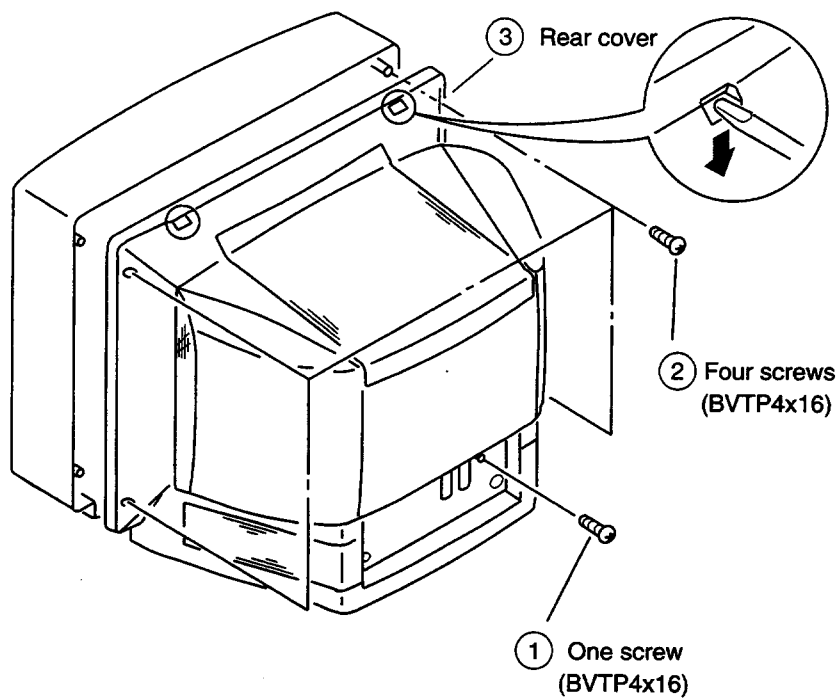


Simple Side

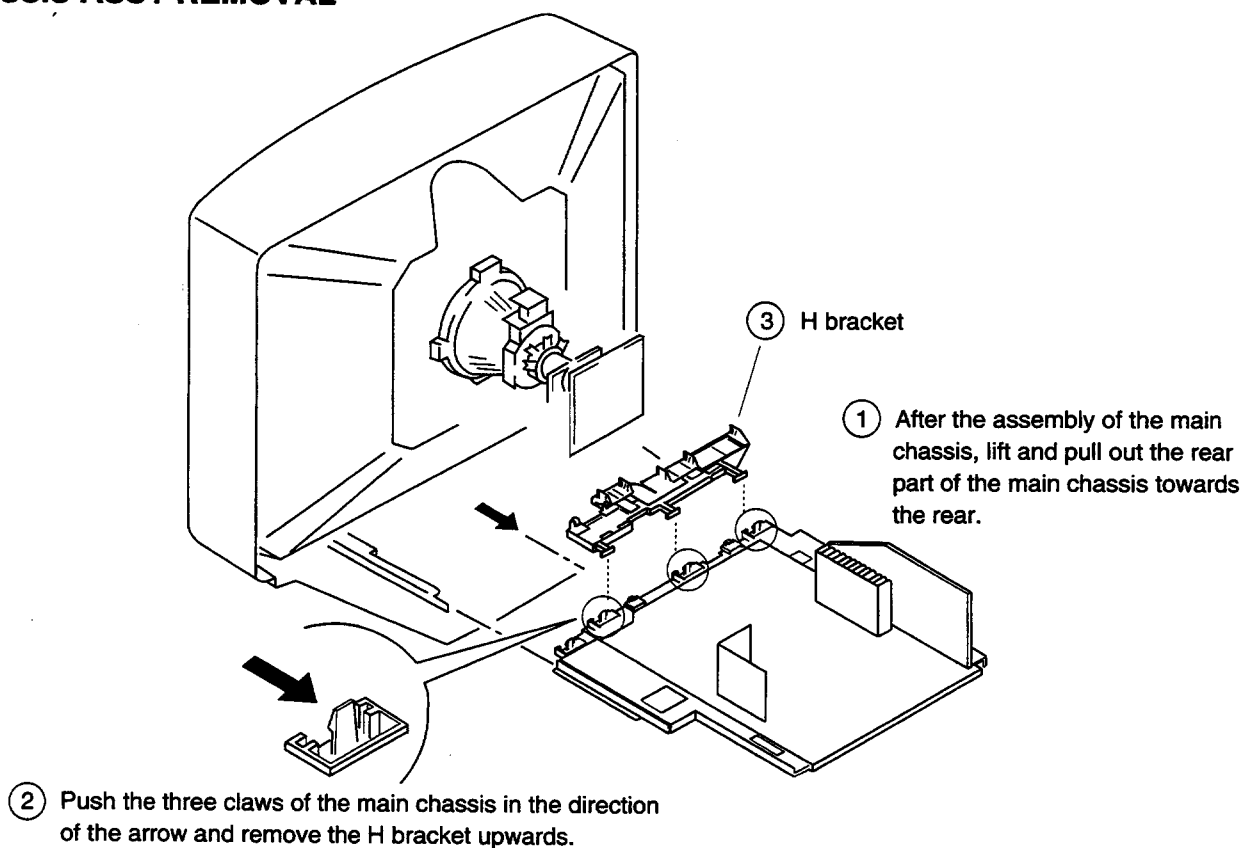


SECTION 2 DISASSEMBLY

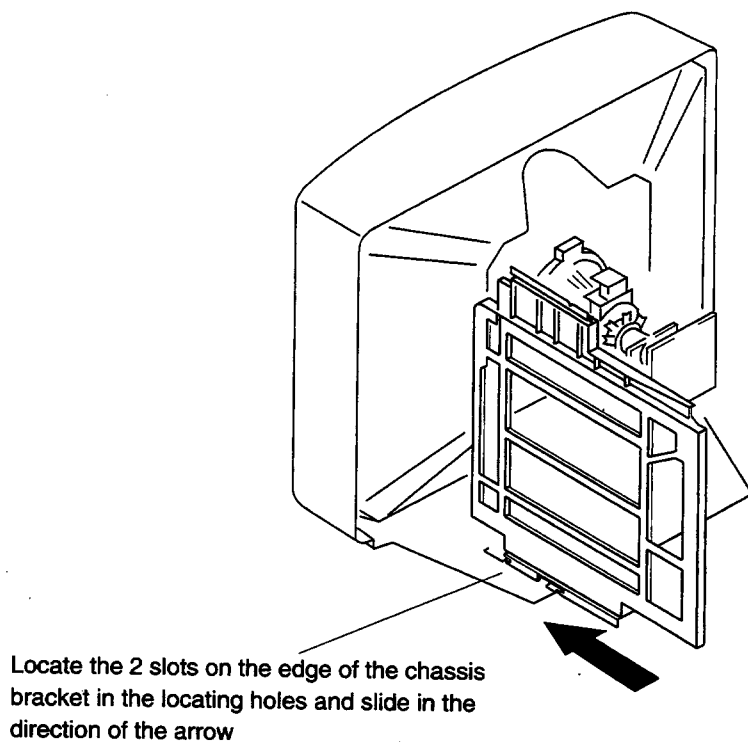
2-1. REAR COVER REMOVAL



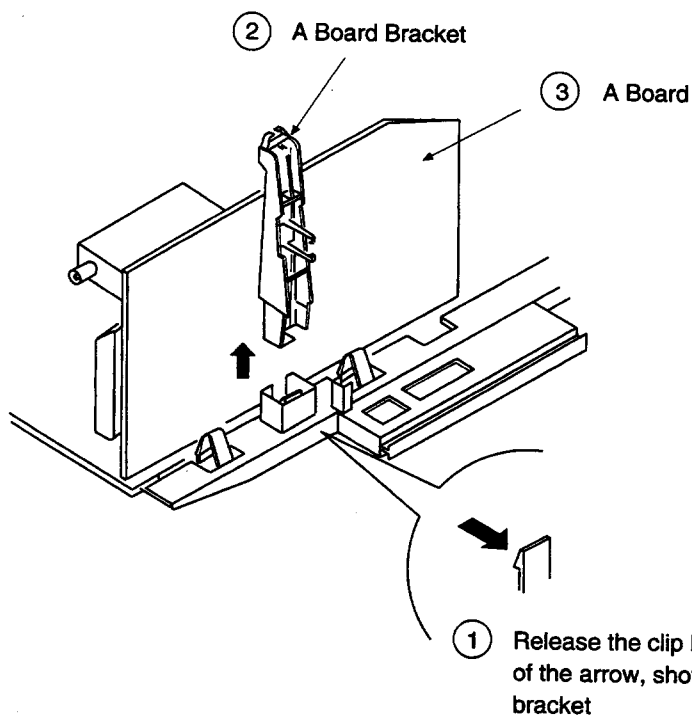
2-2. CHASSIS ASSY REMOVAL



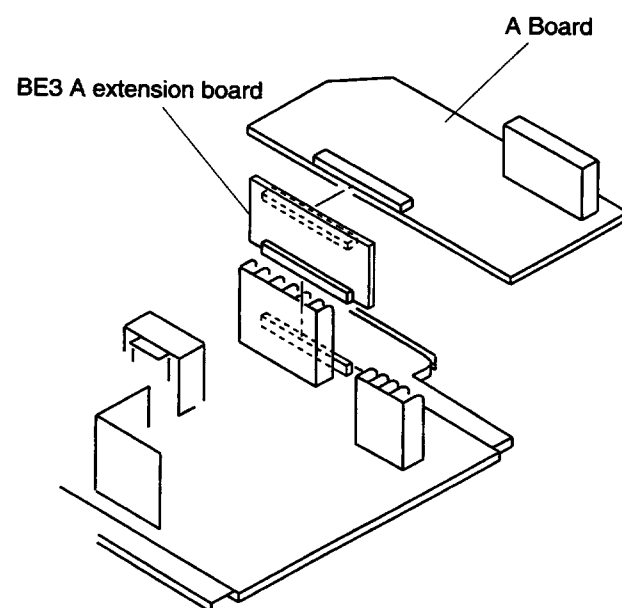
2-3. SERVICE POSITION



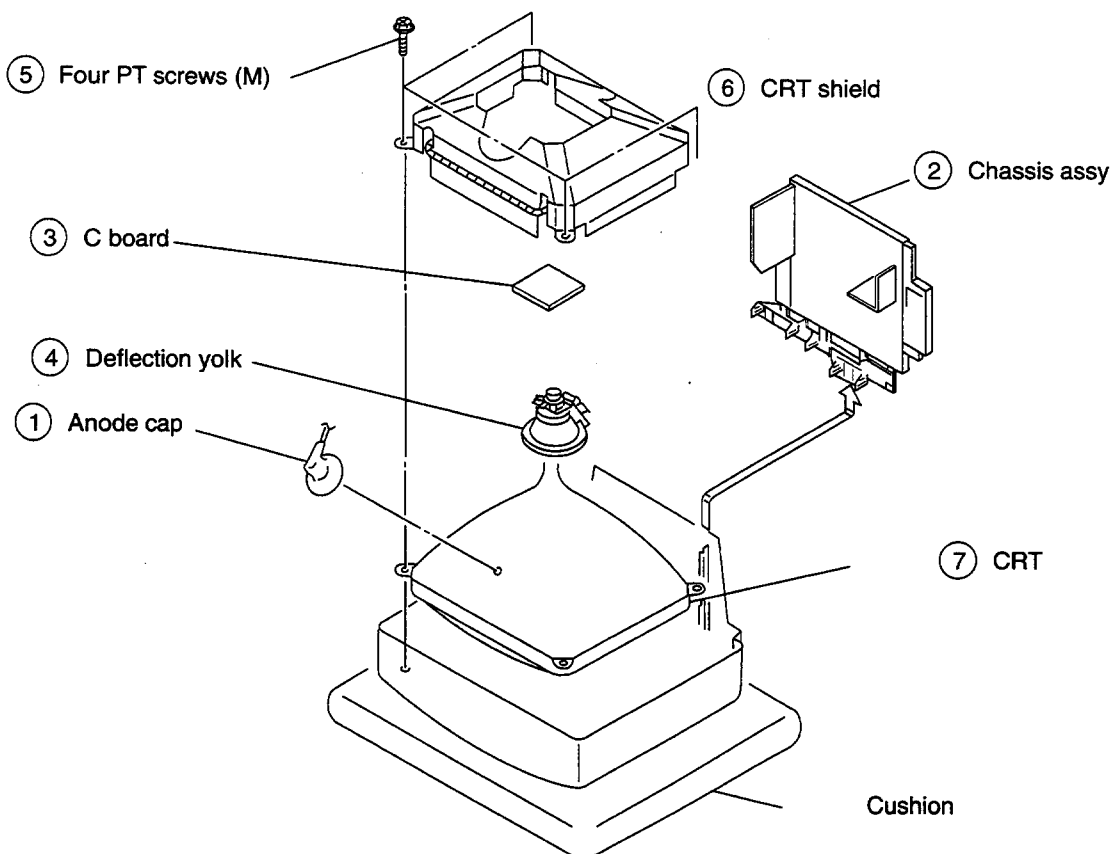
2-4. A BOARD REMOVAL



2-5. EXTENSION BOARD



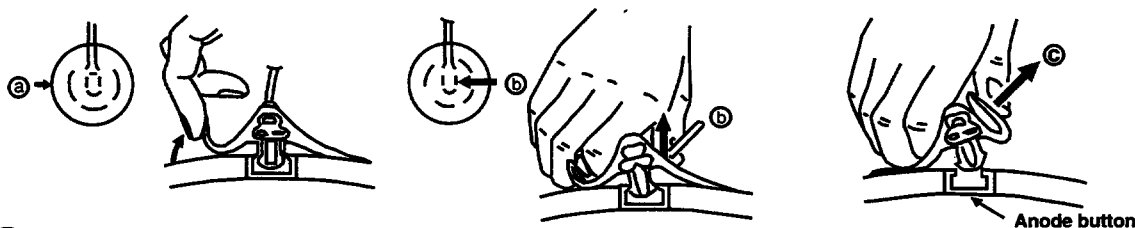
2-6. PICTURE TUBE REMOVAL



• REMOVAL OF ANODE-CAP

Note: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

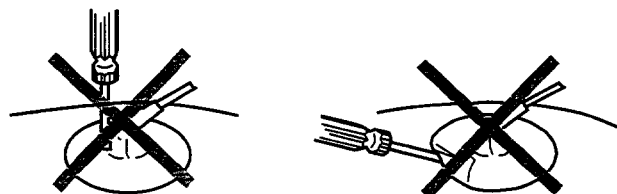
* REMOVING PROCEDURES.



- ① Turn up one side of the rubber cap in the direction indicated by the arrow (a)
- ② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow (b)
- ③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow (c)

• HOW TO HANDLE AN ANODE-CAP

- ① Don't damage the surface of anode-cap with sharp shaped material !
- ② Don't press the rubber hardly not to hurt inside of anode-caps !
A metal fitting called as shatter-hook terminal is built into the rubber.
- ③ Don't turn the foot of rubber over hardly !
The shatter-hook terminal will stick out or damage the rubber.



SECTION 3

SET - UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustments with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches to these settings :

① Contrast 80% (or remote control normal)
 ☆ Brightness 50%

- Carry out the following adjustments in this order :

1. Beam landing
2. Convergence
3. Focus
4. White balance

Note: Testing equipment required.

1. Color bar/pattern generator
2. Degausser
3. DC power supply
4. Digital multimeter
5. Oscilloscope

Preparation:

- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input the white signal with the pattern generator.
 CONTRAST } normal
 BRIGHTNESS }
2. Position neck assy as shown in Fig.3-2.
3. Set the pattern generator raster signal to red.
4. Move the deflection yoke forward and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each side. (See Fig. 3-1 - 3-3)
5. Move the deflection yoke forward and adjust so that the entire screen becomes red. (See Fig. 3-1)
6. Switch the raster signal to blue, then to green and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Fig. 3-4)

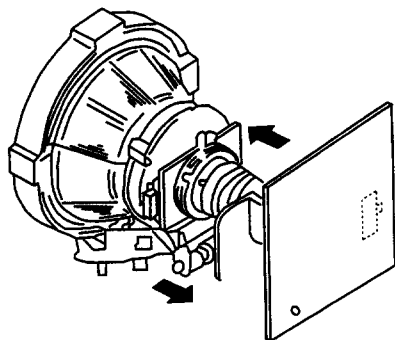


Fig. 3-1

Fig. 3-2

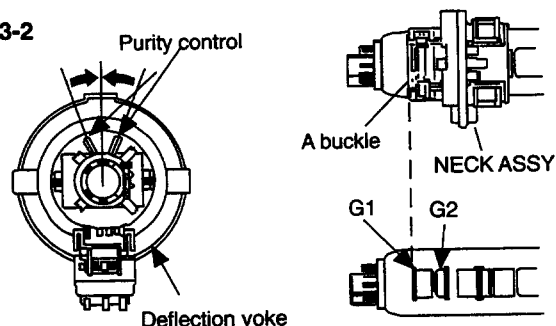


Fig. 3-3

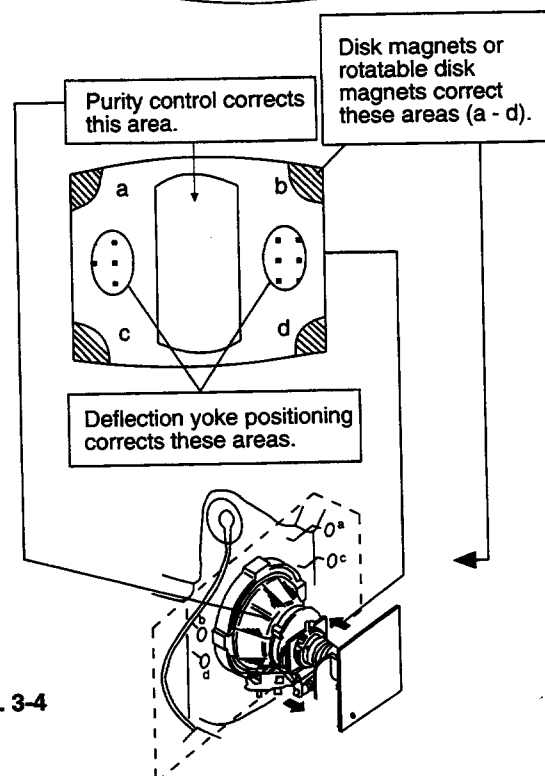
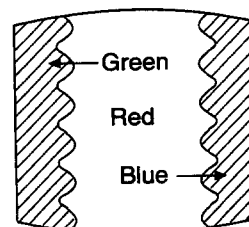


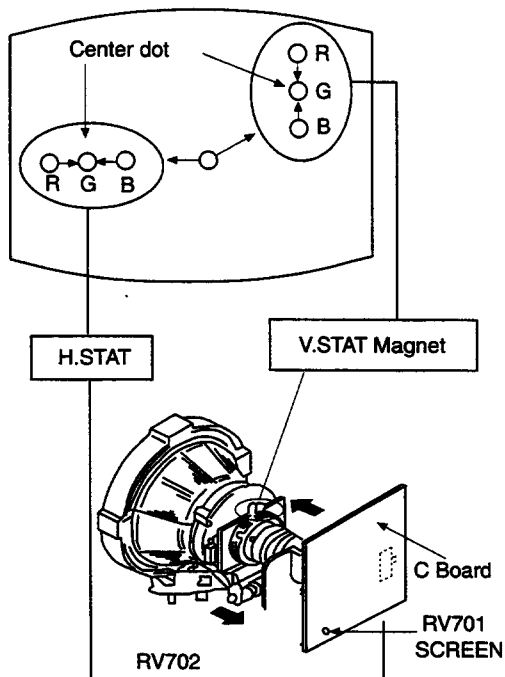
Fig. 3-4

3-2. CONVERGENCE

Preparation:

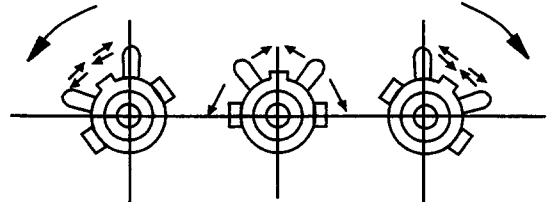
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide a dot pattern.

(1) Horizontal and vertical static convergence

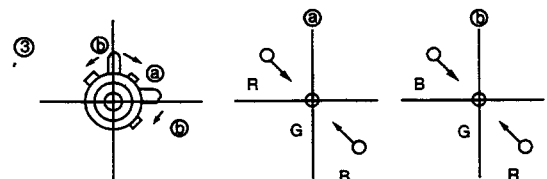
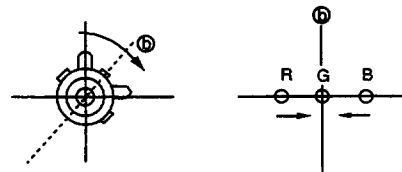
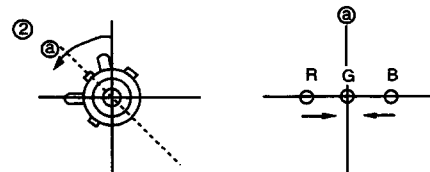
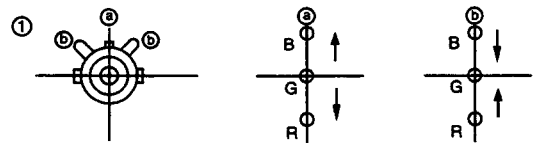


1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.
(In this case, the H.STAT variable resistor and the V.STAT magnet influence each other)

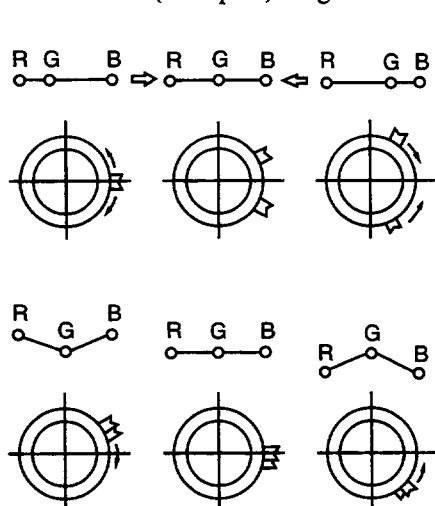
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



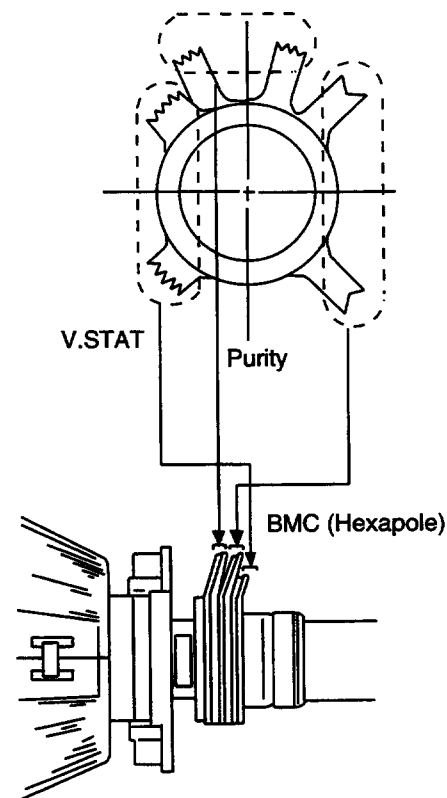
4. If the V.STAT magnet is moved in the direction of the (a) and (b) arrows, the red, green, and blue points move as shown below.



- Operation of BMC (Hexapole) Magnet



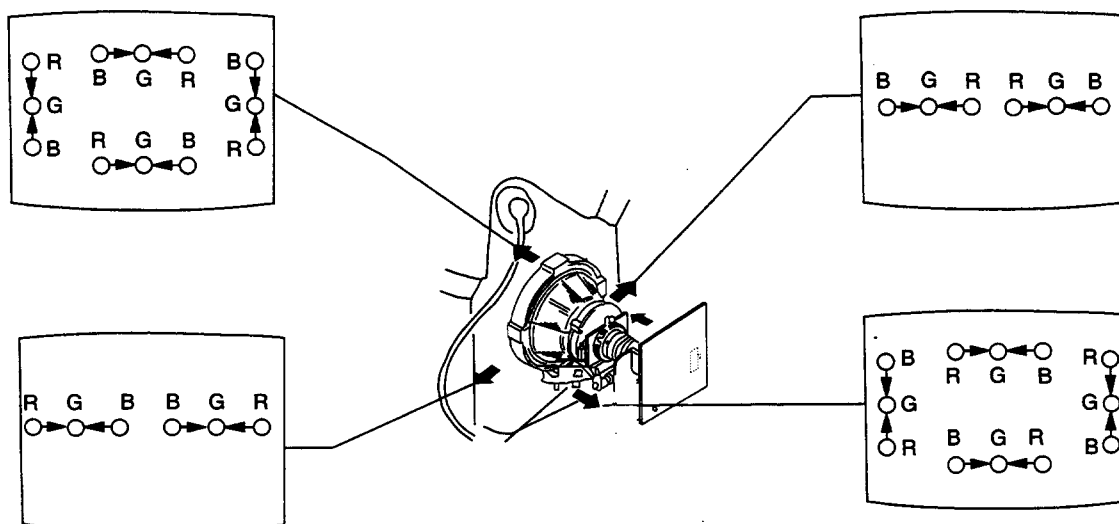
- The respective dot position resulting from moving each magnet interact, so be sure to perform adjustment while tracking.
Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the center of the screen (by moving the dots in the horizontal direction).



(2) Dynamic convergence adjustment.

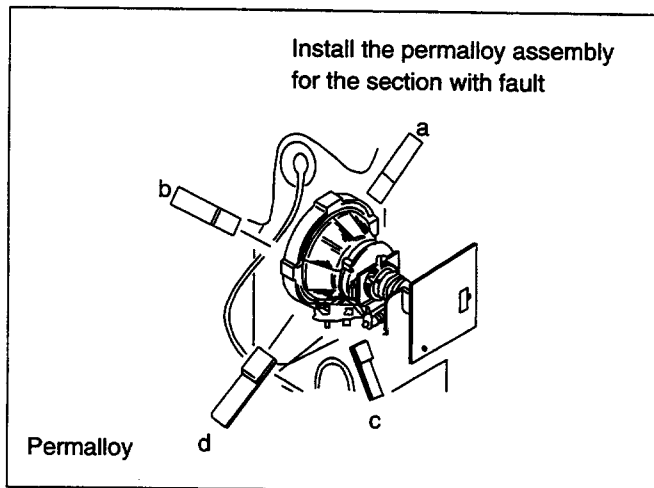
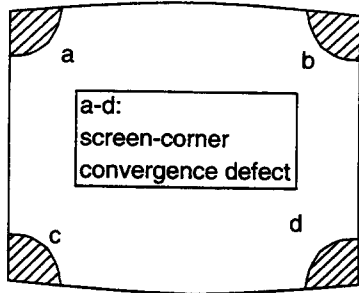
Preparation:

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.
- Slightly loosen the deflection yoke screws.
 - Remove the deflection yoke spacer.
 - Move the deflection yoke as shown in the figure below and optimize the convergence.
 - Tighten the deflection yoke screws.
 - Re-install the deflection yoke spacer.

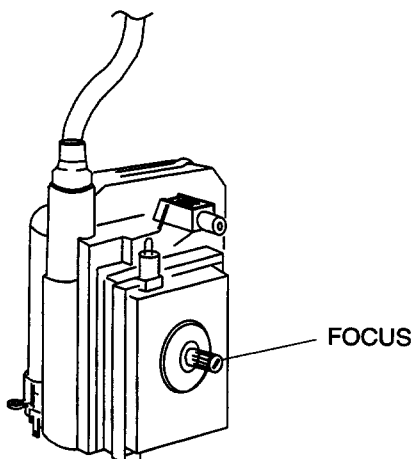


(4) Screen corner convergence.

If you are unable to adjust the corner convergence properly, correct them with the use of permalloy assemblies.

**3-3. Focus**

Adjust the focus to optimize the screen.

**3-4. WHITE BALANCE****Screen G2 Setting**

1. Input the dot signal from the pattern generator.
2. Set the picture brightness control to its lowest level.
3. Apply 180V DC to the R,G, and B cathodes with an external power supply.
4. While watching the picture, adjust G2 control RV701 (Screen) to the point just before the return lines disappear.

White balance adjustment

1. Receive an all-white signal.
2. Enter into service mode. (Refer to the section 4 "Electrical Adjustment" on how to enter service mode.)
3. Select TDA8366 1 on menu.

DEVICE : TDA8366 1

STAT : 12

- ☐ NEXT
- ☐ PREVIOUS
- ☐ OK

USE COLOUR KEYS
SONY TEST MENU.

4. Press the White button on the Remote Commander to enter into the device Menu.
5. Press the Red button 10 times "Next" "Next" "Next" to select HWB RED, adjust to 040.
6. Press the Red button to select HWB GREEN, adjust with the + and - menu buttons so that the white balance becomes optimum.
7. Press the Red button to select HWB BLUE, adjust with the + and - menu buttons so that the white balance becomes optimum.
8. Press the TV button twice on the Remote Commander to store the data and return to TV operation.

SECTION 4

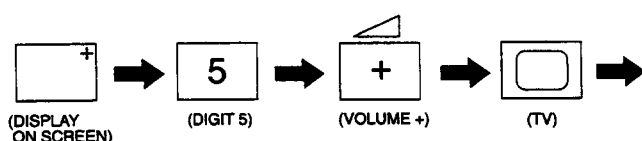
CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied remote commander RM-833.

HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power switch of the set and enter into standby mode.
2. Press the following sequence of buttons on the Remote Commander.



"TT" will appear in the top right corner of the screen. Other status information will also be displayed.

3. Press the MENU button on the Remote Commander to obtain the menu on the screen.

DEVICE NAME

STAT : xxxx

☐ NEXT
☐ PREVIOUS
☐ OK

USE COLOUR KEYS
SONY TEST MENU.

4. Press the Red (Next) and Green (Previous) buttons to select the device corresponding to the adjustment item from the table. Then press the White button (OK).

DEVICE NAME

00 ADJUSTMENT : xxx

☐ NEXT
☐ PREVIOUS

SELECT COL.BUTTON
CHANGE BY MENU +/-

5. Press the Red (Next) or Green (previous) buttons to select the adjustment item. Then press the and buttons to change the data to comply with each standard.
6. Turn off the power to quit the service mode when adjustments are completed.

Initial Conditions for setup of TDA8366, TDA6612 and SAA7283. (Stereo Models Only)

TDA8366 1	INIT VALUE	TDA8366 2	INIT VALUE
Hue	31	Interface	00
H Shift	Adj	Sync Mode	00
H Size	Adj	Col Dec	00
Pin Amp	Adj	Vert Div	00
Com Pin	Adj	Vid ID	00
Tilt	Adj	EHT Track	01
V.Linear	Adj	En V Grd	00
V.Size	Adj	Serv Blk	00
S.Corr	Adj	OVP Mode	00
V.Cent	Adj	Aspect R	00
HWB Red	Adj	Start Freq	00
HWB Green	Adj	Y/C Input	00
HWB Blue	Adj	PAL/NTSC	00
Peaking	8	Xtal PLL	00
Bright	32	Y Delay	07
Colour	32	RGB Blk	00
Picture	37	Noise Cor	00
AGC Set	00	Fast Blk	01
Srce Sel 1	00	AFC Wind	00
Srce Sel 2	00	IF Sensity	00
Time Con	03	Mod Std	00
Xtal Ind	03	Vid Mute	01
FF Freq	02		

TDA6612	INIT VALUE	TDA6612	INIT VALUE
MPX Per	00	Mute 2	01
Quasi St	00	C1/2LS	00
Bass Exp	00	C1/2KH	00
H Pulse	00	Mono	01
Matrix St	00	Scart	00
Bypass	00	Scart D	00
Vol L Sp	07	AM	00
Vol R Sp	07	SAA7283	INIT VALUE
Vol HP	00	Mon M1/M2	01
PlI Sync	00	DM Select	01
Mute 3	01	SSWIT 123	07
Treble	08	Port 2	00
Bass	09	Mute Def	00
X Talk Adj	Adj	AMDIS	00
Mute 1	00	E Max	80
		E Min	01

4-2. TEST MODE 2 :

Is available by pressing Test button twice, OSD 'TT ' appears. The functions described below are available by pressing the two numbers. To release the Test Mode 2, press 0 twice, or switch the TV into Stand-by Mode.

00	switch Test Mode 2 off
01	picture maximum
02	picture minimum
03	Volume 35%
04	Volume 50%
05	Volume 65%
06	Volume 80%
07	Ageing Condition (Volume min., Picture max., Brightness max.
08	Shipping Condition (Analog Values are RESET due to factory setting, Prog 1 is selected, TT Mode is switched off)
09	"Menu" Flag request
10	Tenth entry is deleted
11	dummy
12	dummy
13	dummy
14	Forced AV 16:9 detection on/off
15	Read factory setting from NVM Reads Volume, Balance, Treble, Bass, Brightness, Contrast, Hue, Sharpness, Colour values from ROM to the actual used values (Last Power Memory)
16	Save actual used values as RESET values Memorize actual used values Balance, Treble, Bass, Hue, Sharpness at RESET position in NVM.
17	Preset Label for AV Sources
18	RGB Priority on/off
19	Clear all preset labels
20	Tenth entry is deleted
21	Sub Contrast
22	Sub Colour
23	Sub Brightness
24	Set destination = U RGB Priority = Off
25	Set destination = D RGB Priority = Off
26	Set destination = B RGB Priority = On
27	Set destination = K RGB Priority = Off
28	Set destination = L RGB Priority = Off
29	Set destination = E RGB Priority = Off

30	Tenth entry is deleted
31	Set Destination = A RGB Priority = On
32	dummy
33	Auto AGC
34	N/S Pin Adjust
35	Manual AGC Adjust
36	dummy
37	dummy
38	dummy
39	dummy
40	Tenth entry is deleted
41	Re-initialise NVM
42	Production use only
43	Initialise Geom Settings
44	Initialise all favorite pages = 100
45	Channel locks = off
46	IR Channel Presetting Mode The channel presetting can be done by a Special IR Transmitter (Ver 2 and above software only)
47	dummy
48	Set NVM testbyte to 44h
49	Erase the NVM Testbyte (this byte detects already stored NVM's) After selecting this function, switch TV Off and On -> the NVM will be preset by μ -Controller.

In Test Mode the Menu display is switchable by the Speaker-Off button.

Note : For Test Modes 41 - 49 it is necessary to ensure that the TV is set to Prog 59.

SUB BRIGHTNESS ADJUSTMENT

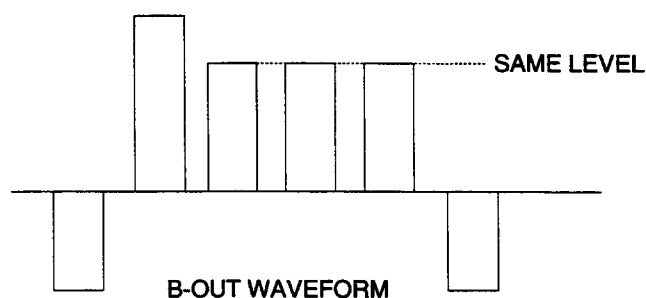
1. Input a Phillips pattern.
2. Enter into service mode and press 23.
3. Adjust data so that 0-IRE of grey scale and CUT-OFF 20-IRE are only slightly visible on screen.

SUB CONTRAST ADJUSTMENT

1. Input a video that contains a small 100% area on a Black Background.
2. Enter into service mode and press 01 to have PIC max followed by 21.
3. Connect oscilloscope to pin ① of CN703 (R OUT) and adjust HWB Red data of TDA8366 1 to obtain 2.3Vp-p.

SUB COLOR ADJUSTMENT

1. Input a PAL color bar signal.
2. Connect an oscilloscope to pin ③ of CN703 (B OUT) on the C board.
3. Enter into service mode and press 22.
4. Adjust data so that the right sides of the waveform are set to the same level.

**STEREO SEPARATION ADJUSTMENT**

1. Input a 1KHz stereo signal to the L-ch and a 400Hz stereo signal to the R-ch.
2. Enter into service mode and select the "Test Menu" to be TDA6612.
3. Select the Stereo Xtalk Adjustment Menu, by using the Red (Next) and Green (Previous) buttons.
4. Monitor the Scart 1 L-channel output and adjust the data so that the R-channel sound is not detected in the L-channel.

I.F. COIL ADJUSTMENT (T101) - B/G, D/K, I AND L STANDARD FOR CONTINENTAL MODELS.

1. Apply a 38.9MHz signal at 100dBuV to the input of SWF101.
2. Receive a channel so that the I.C. is selected for negative modulation.
3. Measure the voltage at the AFT test point and adjust (T101) to obtain 2.4V +/- 0.2V.

I.F. COIL ADJUSTMENT (T101) - I, STANDARD FOR U.K. MODELS.

1. Apply a 39.5MHz signal at 100dBuV to the input of SWF101.
2. Receive a channel so that the I.C. is selected for negative modulation.
3. Measure the voltage at the AFT test point and adjust (T101) to obtain 2.4V +/- 0.2V.

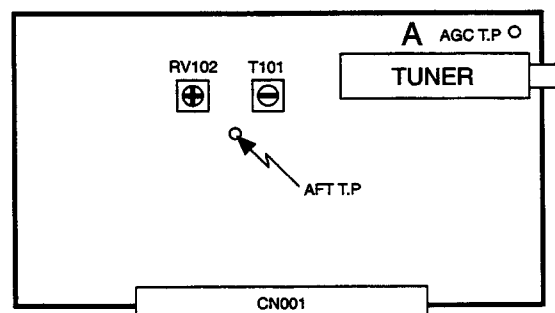
L, BAND 1 ADJUSTMENT (RV102) - L, STANDARD FOR FRENCH MODELS.

1. Apply a 33.95MHz signal at 100dBuV to the input of SWF101.
2. Receive a channel so that the I.C. is selected for positive modulation and system L band 1.
3. Measure the voltage at the AFT test point and adjust (RV102) to obtain 2.4V +/- 0.2V.

Note : Only adjust RV102 after T101 has been correctly adjusted.

AGC ADJUSTMENT

1. Receive an off- air signal.
2. Enter the service mode, ("Test" "Test") and 35.
3. Adjust the data so that there is no snow or cross - modulation visible on the screen.
4. Change the receiving off-air channel, and confirm the above status.



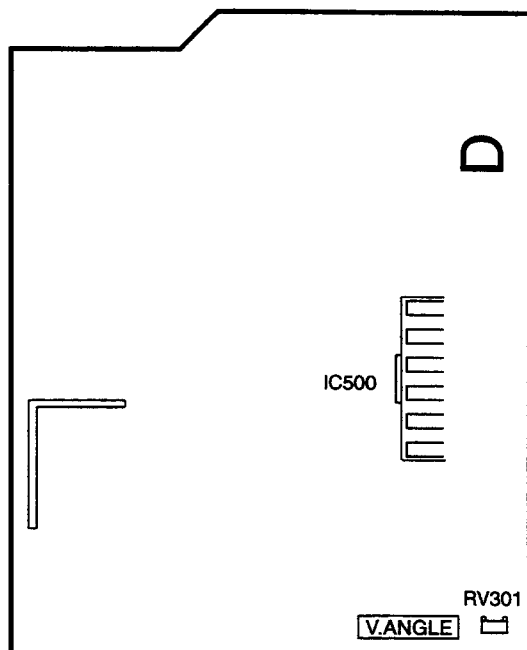
- A Board component side -

DEFLECTION SYSTEM ADJUSTMENT

1. Enter into service mode.
2. Select and adjust each item in order to obtain the optimum image.

Item No	Adjustment item.	Data Amount
03	H SHIFT	ADJ.
04	H SIZE	ADJ.
05	PIN AMP	ADJ.
06	CORR PIN	ADJ.
07	TILT	ADJ.
08	V LINEAR	ADJ.
09	V SIZE	ADJ.
0A	S CORR	ADJ.
0B	V CENTER	ADJ.

Note : V ANGLE is adjusted by a Variable Resistor on the 'D' Board (RV301)



- D Board Component Side -

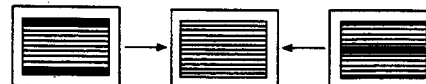
V SIZE



V CENTER



S CORR



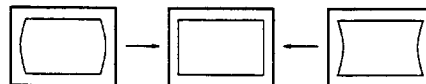
V LIN



H SIZE



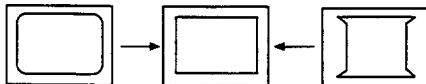
PIN AMP



TILT



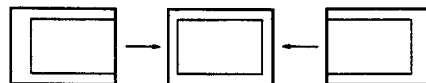
CORR PIN



V ANGLE



H SHIFT



4-3. BE3 SELF DIAGNOSTIC SOFTWARE

The identification of errors within the BE-3 chassis is triggered in 1 of 2 ways :- 1: Bus busy or 2: Device failiure to respond to IIC. In the event of one of these situations arrising the software will first try to release the bus if busy (Failiure to do so will report with continous flashing LED) and then communicate with each device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the led (Series of flashes which must be counted) See Table 1., on fatal errors are reported with this method.

If a fatal error is found the set will simply stay in whichever state it was when the error occured, but if a non fatal error occurs the set will try to continue operation.

Table 1

Device	LED Error Count	Fatal Error
NVM	2 .. 9	√
Teletext	10	
Jungle	11	√
Video_sw	12	
Tuner	13	√
Nicam	14	
Audio_cont	15	√

Flash Timing Example : e.g. error number 3.

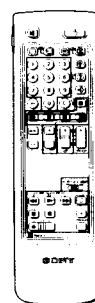
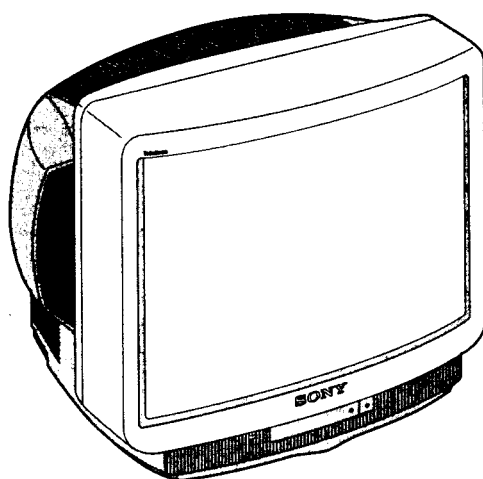
Stby LED



SERVICE MANUAL

BE-3B CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-X2901D	RM-833	AEP	SCC-G77B-A	KV-X2903E	RM-833	Spanish	SCC-G82BA-A
KV-X2901A	RM-833	Italian	SCC-G81B-A	KV-X2902L	RM-833	IRISH	SCC-G83B-A
KV-X2900B	RM-833	French	SCC-G85B-A	KV-X2902U	RM-833	UK	SCC-G87B-A
KV-X2901B	RM-833	French	SCC-G84B-A	KV-X2901K	RM-833	OIRT	SCC-G86A-A



TRINITRON® COLOR TV
SONY®

ITEM MODEL	Television System	Stereo System	Channel Coverage	Color System
AEP	B/G/H, D/K	GERMAN Stereo	PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Italian	B/G/H, D/K	GERMAN Stereo	ITALIA VHF:A-H2 (C) UHF: 21-69 PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
French	B/G/H, D/K L, I	GERMAN Stereo	L VHF:F02-F10 UHF:F21-F60 CABLE:B-Q B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 I UHF:B21-B69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Spanish	B/G/H, D/K	GERMAN/NICAM Stereo	PAL B/G VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Irish	I	NICAM Stereo	VHF A-C, D-J, VHF 21-69 CABLE CHANNELS S1-S20 HYPERBAND S21-S41	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
UK	I	NICAM Stereo	UHF : B21-B69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
OIRT	B/G/H, D/K	GERMAN Stereo	B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)

MODEL	AEP	Italian	French Text	French Non Text	Spanish	Irish	UK	OIRT
Power Consumption	108W	108W	108Wh	108W	108W	156W	156W	108W

SPECIFICATIONS

Picture Tube Hi-Black Trinitron
Approx. 72 cm (29 inches)
(Approx. 68 cm picture measured diagonally)
110° -deflection

Input/Output Terminals

[REAR]

②-1 21-pin Euro connector (CENELEC standard)

- inputs for audio and video signals
- inputs for RGB
- outputs of TV video and audio signals

②-2/② 2 21-pin Euro connector

- inputs for audio and video signals
- inputs for S video
- outputs for audio and video signals (selectable)

[FRONT]

- ⊖3 Video input - phono jack
- ⊕3 Audio inputs - phono jacks
- ⊖3S video input 4-pin DIN
- Ω Headphone jacks : stereo minijack

- Sound output 2 x 20W (Music power)
- Power requirements 220 - 240V
- Dimensions Approx. 656x566x518 mm
- Weight Approx. 45kg
- Supplied accessories RM-833 Remote Commander (1)
IEC designation R6 battery (1)
- Other features NICAM, FASTEXT, TOPTEXT.

[RM-833]

- Remote control system infrared control
- Power requirements 1.5V dc
1 battery IEC designation R6 (size AA)
- Dimensions Approx. 65x225x21 mm (w/h/d)
- Weight Approx. 157g (Not including batteries)

Design and specifications are subject to change without notice.

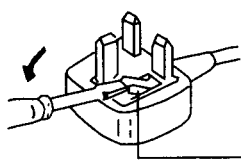
Model name Item	KV-X2901D	KV-X2901A	KV-X2900B	KV-X2901B	KV-X2903E	KV-X2902L	KV-X2902U	KV-X2901K
Pal Comb	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
PIP	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
RGB Priority	OFF	ON	ON	ON	OFF	OFF	OFF	OFF
Woofer Box	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Scart 1	ON	ON	ON	ON	ON	ON	ON	ON
Scart 2	ON	ON	ON	ON	ON	ON	ON	ON
Front in (3)	ON	ON	ON	ON	ON	ON	ON	ON
Scart 4	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Projector	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
AKB in 16:9 mode	ON	ON	ON	ON	ON	ON	ON	ON
Norm B/G	ON	ON	ON	ON	ON	OFF	OFF	ON
Norm I	OFF	OFF	OFF	OFF	ON	ON	ON	OFF
Norm D/K	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON
Norm AUS	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Norm L	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF
Norm SAT	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Norm M	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Teletext	ON	ON	OFF	ON	ON	ON	ON	ON
Nicam Stereo	OFF	OFF	OFF	OFF	ON	ON	ON	OFF
Language Preset	Deutsch	Italian	French	French	Spanish	English	English	QIRT

WARNING (KV-X2902L / KV-X2902U only)

The flexible mains lead is supplied connected to a **B.S. 1363** fused plug having a fuse of **5 AMP** capacity. Should the fuse need to be replaced, use a **5 AMP FUSE** approved by **ASTA** to **BS 1362**, ie one that carries the  mark.

IF THE PLUG SUPPLIED WITH THIS APPLIANCE IS NOT SUITABLE FOR YOUR SOCKET OUTLETS IN YOUR HOME. IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED. THE PLUG SEVERED FROM THE MAINS LEAD MUST BE DESTROYED AS A PLUG WITH BARED WIRES IS DANGEROUS IF ENGAGED IN A LIVE SOCKET OUTLET.

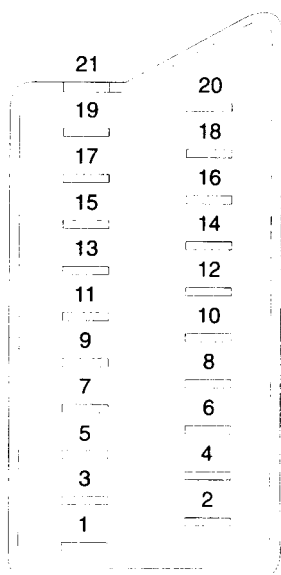
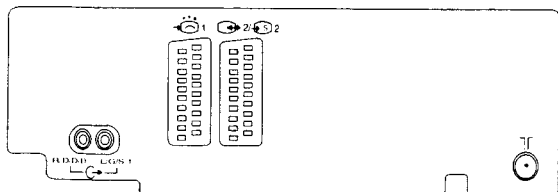
When an alternative type of plug is used it should be fitted with a **5 AMP FUSE**, otherwise the circuit should be protected by a **5 AMP FUSE** at the distribution board.



How to replace the fuse.
Open the fuse compartment with the screwdriver blade and replace the fuse.

FUSE

21 pin connector (1 2 4)



Pin No.	1	2	4	Signal	Signal level
1	○	○	○	Audio output B (right)	Standard level : 0.5V rms Output impedance :Less than 1kohm*
2	○	○	○	Audio input B (right)	Standard level : 0.5V rms Output impedance :More than 10kohm*
3	○	○	○	Audio output A (left)	Standard level : 0.5V rms Output impedance :Less than 1kohm*
4	○	○	○	Ground (audio)	
5	○	○	○	Ground (blue)	
6	○	○	○	Audio input A (left)	Standard level : 0.5V rms Output impedance :More than 10kohm*
7	○	●	●	Blue input	0.7 ± 3dB, 75 ohms, positive
8	○	○	○	Function select (AV control)	High state (9.5 - 12V) : Part mode Low state (0 - 2V) : TV mode Input impedance : More than 10k ohms Input capacitance : Less than 2nF
9	○	○	○	Ground (green)	
10	○	○	○	Open	
11	○	●	●	Green	Green signal : 0.7 ± 3dB, 75 ohms, positive
12	○	○	○	Open	
13	○	○	○	Ground (red)	
14	○	○	○	Ground(blanking)	
15	○	—	—	Red input (S signal) chroma input	0.7 ± 3dB, 75 ohms, positive 0.3 ± 3dB, 75 ohms, positive
16	○	●	●	Blanking input (Y's signal)	High state (1 - 3V) Low state (0 - 0.4V) Input impedance : 75ohms
17	○	○	○	Ground(video output)	
18	○	○	○	Ground(video input)	
19	○	○	○	Video output	1V ± 3dB,75ohms,positive sync:0.3V (-3+10dB)
20	○	—	—	Video input Y (S signal)	1V ± 3dB,75ohms,positive sync:0.3V (-3+10dB)
21	○	○	○	Common ground (plug, shield)	

○ Connected ● Not Connected (open) * at 20Hz - 20kHz

Pin No	Signal	Signal level
1	Ground	
2	Ground	
3	Y (S signal) input	1V ± 3dB 75 ohm , positive Sync. 0.3V -3/+10 dB
4	C (S signal) input	0.3V ± 3dB 75 ohm , positive Sync.

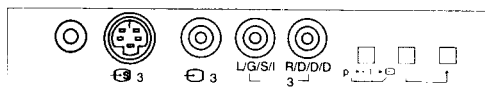


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CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVAL OF THE ANODE CAP.

WARNING !!

AN ISOLATING TRANSFORMER SHOULD BE USED DURING ANY SERVICE WORK TO AVOID POSSIBLE SHOCK HAZARD, DUE TO A LIVE CHASSIS. THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARKED  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION !!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ !!

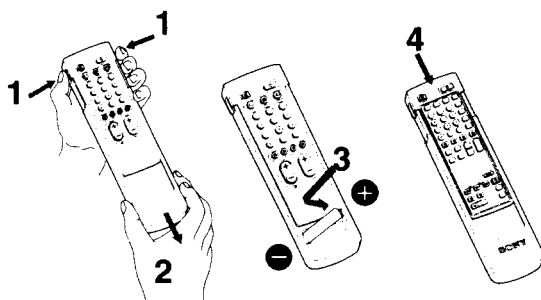
LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE  SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIÈCES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT, NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1 GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

Getting Started

Inserting the Battery Into the Remote Commander



Remove the cover.

Check the correct polarity.

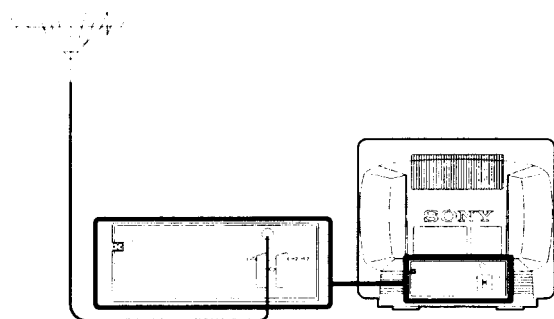
Refit the outside cover making sure that the Full Function side is visible.

About Battery Life

Under normal operation, a battery will last up to half a year.

Connecting the Aerial

Connect aerial to the Π socket at the rear of the TV. (cable not supplied)



Choosing a Language

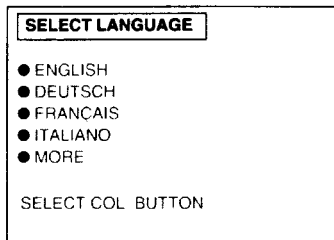
(See inside of front cover and back cover)

1 Depress A on the TV.
The TV turns on. If the standby indicator B on the TV is lit, press C or any number button D on the Remote Commander.

2 Press MENU E on the Remote Commander.
The SELECT LANGUAGE screen appears.

MENU

3 Press one of the colour buttons F on the Remote Commander to select a language (Press the white button F to display other language alternatives). The SELECT LANGUAGE screen clears and all subsequent menus appear in the chosen language.



Note: From the second time when you turn on the TV, the MENU screen appears instead of the SELECT LANGUAGE screen. Press the yellow button F then press the white button F to redisplay the SELECT LANGUAGE screen.

Tuning in to Channels

You can tune in up to 60 channels to programme positions either automatically or manually.

auto tuning: A single button press allows all receivable channels to be tuned. Use if you are unfamiliar with the channel numbers of stations.

manual tuning: Use if you are familiar with the channel numbers of stations.

Choose the more appropriate way for you.

Tuning in to Channels Automatically

There are two possibilities for auto tuning;

A. On the TV: hold down G H on the front of the TV for 2 seconds

or

B. On the Remote Commander: as follows

1 Press MENU I .

2 Press the white button J .

3 Hold down the red button J for 2 seconds,

Note: Press the green button J to cancel.

Tuning in to Channels Manually

- 1** Press MENU **[7]**.
The MENU screen appears.

MENU

- 2** Press the white button **[17]** to select PRESET.
The PRESET screen appears.

PRESET

- AUTO TUNING
- MANUAL TUNING
- PROGR EXCHANGE
- EDIT PROGR NAME
- FINE TUNE

SELECT COL. BUTTON

- 3** Press the green button **[17]** to select MANUAL TUNING.
The MANUAL TUNING screen appears.

MANUAL TUNING

01 B/G C21

- SKIP OFF
- OK

ENTER PROGR. NO.
USE NO. BUTTONS OR
CHANGE BY MENU +/-

- 4** Press the number buttons **[4]** or MENU+/- **[9]** to select a programme position.
If you use the number buttons **[4]**, enter a double-digit number. (e.g. for programme number 4, first press 0, then 4)

- 5** Press the green button **[17]**.

Note: Use MENU +/- **[9]** to select TV system. You can alternatively select input sources which may be assigned to programme positions. The display changes as follows:

B/G ↔ D/K ↔ AV1 ↔ RGB ↔ AV2 ↔ YC2 ↔ AV3 ↔ YC3

MANUAL TUNING

01 B/G C21

- OK

SELECT SYSTEM/INPUT
CHANGE BY MENU +/-

- 6** Press the green button **[17]**.

Note: If a video input source is selected in step 5, this is now stored. Refer to step 4 to tune other programme positions.

MANUAL TUNING

01 B/G C21

- C/S
- OK

ENTER CHANNEL NO.
USE NO. BUTTONS OR
SEARCH BY MENU +/-

- 7** When you have selected B/G, press the red button **[17]** to select C (regular channel) or S (cable channel).

- 8** Press the number buttons **[4]** or MENU+/- **[9]** to select the channel number.
If you use the number buttons **[4]**, enter a double-digit number. (e.g. for channel 23, first press 2, then 3)

- 9** Press the green button **[17]** to store.

Note: If you want to preset other channels, repeat steps 4 to 9.

- 10** Press MENU **[7]** twice to return to the normal screen.

Note: You can skip unused programme positions when selecting programmes with the PROGR +/- buttons **[18]**. Press the red button **[17]** to skip in step 4. However, the skipped programmes may still be called up when you use the number buttons.

Basic TV Operations

Turning the TV on and off

Turning on

Depress **[A]** on the TV.

Turning off temporarily

Press **[10]** on the Remote Commander.

The TV enters standby mode and the standby indicator **[B]** on the front of the TV lights up.

Turning on again

Press **[3]**, PROGR +/- **[18]**, or one of the number buttons **[4]** on the Remote Commander.

Turning off completely

Depress **[A]** on the TV.

Note: It is recommended to use **[A]** to turn off the TV. This could help you save energy.

Selecting TV Programmes

Press PROGR +/- **[18]** or press number buttons **[4]**.

To select a double-digit number

Press -/- **[5]**, then the number buttons **[4]**.

Adjusting the Volume

Press **[19]**.

Muting the Sound

Press **[1]**.

To resume normal sound, press **[1]** again.

Displaying the On-screen Indications

Press **[14]** once to display the on-screen indications.

Press again to make the indications disappear.

Operating the TV Using the Buttons on the TV

With the buttons on the TV, you can adjust or select the functions as follows:

Press **[D]** to adjust the volume.

Press P +/- **[C]** to select programme numbers or to turn the TV on from the standby mode.

Press **[F]** to select the input source.

Press **[E]** to preset channels automatically.

Advanced TV Operations

Operating the Menu System

You can adjust picture and sound, preset channels to programme positions and utilise other convenient features by using the following menu system.

Press;	to;
1 MENU  	enter the MENU screen
2 a colour button  	select an item you want to change (The selected item is marked by a triangle.)
3 MENU +/-   	change (or adjust) the contents of the item
4 MENU 	return to the MENU screen
5 MENU  again	return to the normal screen
Press MENU  once or twice whenever you want to return to the normal screen.	

Note: When selecting menus, the picture becomes darker. If, however, an item in the PICTURE ADJUSTMENT menu is selected, normal level of TV picture is restored to allow the best adjustment.

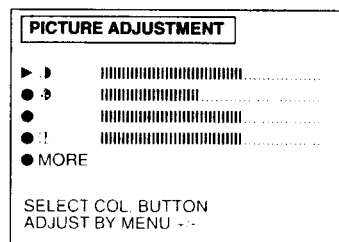
Adjusting the Picture and Sound

Although picture and sound are adjusted at the factory you can adjust them to suit your own taste.

- 1** Press MENU . The MENU screen appears. 
- 2** Press the red button  to select PICTURE or the green button  to select SOUND.
- 3** Press the respective colour button  to select an item.
- 4** Press MENU +/-  to adjust.
- 5** Press MENU  twice or wait until the menu displays disappear automatically to return to the normal screen.

PICTURE ADJUSTMENT

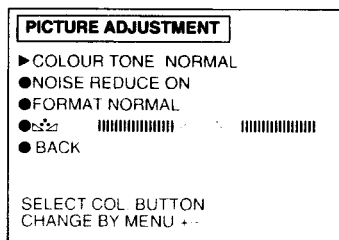
(First Page)



Press colour button	Effect
Red: For Picture 	Less — — More
Green: For Colour 	Less — — More
Yellow: For Brightness 	Darker — — Brighter
Blue: For Sharpness 	Softer — — Sharper
White:	Next page of PICTURE ADJUSTMENT

PICTURE ADJUSTMENT

(Second Page)

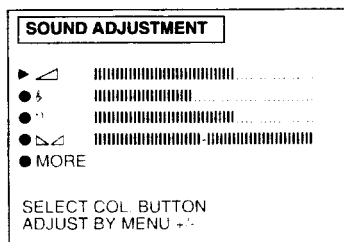


Press colour button	Effect
Red: For Colour Tone	Normal -> Warm (reddish colour tone) -> Cool (blueish colour tone)
Green: For Noise Reduce	ON: Reduces picture noise (in case of low signal level) OFF: Normal setting
Yellow: For Format	Normal: Normal setting 16:9 Wide screen effect
Blue: For Hue control  (only for NTSC video signals)	Reddish — — Greenish
White:	Back to first page of PICTURE ADJUSTMENT

Note: Press  on the Remote Commander to reset to the factory preset levels for picture and sound.

SOUND ADJUSTMENT

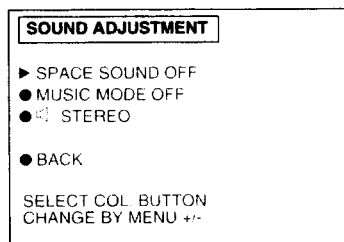
(First Page)



Press colour button	Effect
Red: For Volume	Less More
Green: For Treble	Less More
Yellow: For Bass	Less More
Blue: For Balance	More left - more right
White:	Next page of SOUND ADJUSTMENT

SOUND ADJUSTMENT

(Second Page)



Press colour button	Effect
Red: For Space Sound	OFF: normal sound ON: for a special acoustic sound effect
Green: For Music Mode	OFF: normal sounds ON: when listening to music broadcast
Yellow: For Stereo:	Stereo -> Mono A (left channel) -> Mono B (right channel) -> Mono
White:	Back to first page of SOUND ADJUSTMENT

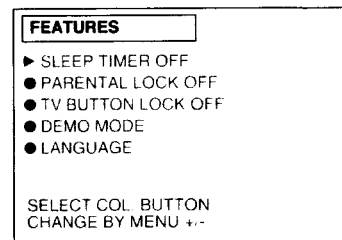
Note: Press [8] on the Remote Commander to reset to the factory preset levels for picture and sound.

Using Special Features

With your TV you can utilise special features such as Parental Lock or Sleep Timer.

- 1 Press MENU [7].
The MENU screen appears.
- 2 Press the yellow button [17] to select FEATURES.
- 3 Press the respective colour button [17] to select an item.
- 4 Press MENU +/- [9] to change.
- 5 Press MENU [7] twice or wait until the menu displays disappear automatically to return to the normal screen.

FEATURES



Press colour button	Effect
Red: For Sleep Timer (Automatic switch off function)	OFF -> 0:30 -> 1:00 -> 1:30 -> 2:00 (hours) After the selected time the TV set switches itself automatically into standby mode.
Green: For Parental Lock (For preventing children from watching programmes which you consider unsuitable)	OFF: Normal setting ON: The TV-channel you are watching is now blocked. In this way you can prevent undesirable broadcasts from appearing on the screen.
Yellow For TV Button Lock	OFF: Normal setting ON: The buttons on the TV do not function anymore. (The Remote Commander still operates)
Blue: For Demo Mode	ON: A sequence of menu pictures is displayed. Press any button on the Remote Commander to stop the function.
White: For Language	The SELECT LANGUAGE screen appears.

Advanced Presetting Functions

Exchanging Programme Positions

You can exchange the programme positions to a preferred order (example: exchange programme 09 (channel C21) with programme 15 (channel C24)).

- 1 Press MENU [7].

The MENU screen appears.

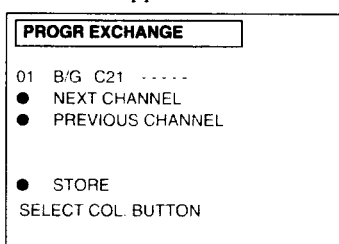


- 2 Press the white button [17].

The PRESET screen appears.

- 3 Press the yellow button [17].

The PROGR EXCHANGE screen appears.



- 4 Press the white button [17] repeatedly until the desired programme number (09) appears.

- 5 Press the red or the green button [17] repeatedly until the desired channel number (C24) appears.

- 6 Press the white button [17] to store.

Now the exchange has been completed. Channel C24 is tuned in to programme 09 and channel C21 is tuned in to programme 15.

- 7 Press MENU [7] twice to return to the normal screen.

Editing Programme Names

You can edit the programme names up to five letters.

- 1 Press MENU [7].

The MENU screen appears.

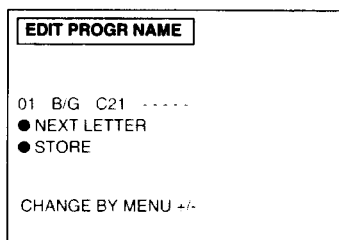


- 2 Press the white button [17].

The PRESET screen appears.

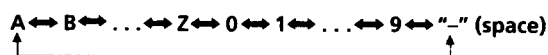
- 3 Press the blue button [17].

The EDIT PROGR NAME screen appears.
The first character flashes.



- 4 Press MENU +/- [9] to edit the first letter.

The first letter changes as follows;



- 5 Press the red button [17] to move to the next letter.

- 6 Repeat steps 4 to 5, until the fifth letter is chosen.

- 7 Press the green button [17].

The programme name is stored, and the normal screen appears. To edit another programme name, repeat steps 1 to 7.

Fine Tuning

You can adjust the receiving condition by the FINE TUNE function.

- 1 Press MENU [7].

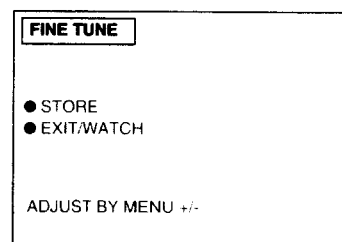
The MENU screen appears.

- 2 Press the white button [17].

The PRESET screen appears.

- 3 Press the white button [17] again.

The FINE TUNE screen appears.



- 4 Press MENU +/- [9] to adjust the receiving condition.

- 5 Press the red button [17] to store the adjustment, or press the green button [17] not to store.

Then the normal screen appears. If you have pressed the green button, the fine tuned condition is cancelled once you choose another programme.

Tuning in to a Channel Temporarily

You can tune in to a channel temporarily, even when it has not been preset.

- 1 Press C [16] on the Remote Commander. For cable channels, press C [16] twice.

The indicator "C" ("S" for cable channels) appears on the screen.

- 2 Enter a double-digit channel number using the number buttons (e.g. for channel 23, first press 2, then 3).

The channel appears.

However, the channel is not stored.

Teletext Operation

TV stations broadcast teletext programmes via the TV channels. For basic operation of teletext, use the simple side of the Remote Commander. For the advanced features of teletext, use the buttons indicated in green on the full function side of the Remote Commander.

Basic Teletext Operation

Switching Teletext on and off

- 1 Select the channel which carries the teletext service you wish to view.
- 2 Press **[11]** to display Teletext.
If no teletext signal is broadcast, the indication P100 is displayed on a black screen.



- 3 Input three digits for the page number using the number buttons **[4]**.
The numbers are displayed on the screen and the requested page appears in a few seconds.
Note: If you make a mistake, type in any three digits, then re-enter the correct page number.

- 4 Press **[3]** to return to the TV mode.

Note: To change the teletext channels. First press **[3]** to return to the TV mode, then repeat steps 1 to 3.

Note: If the signal of a TV channel is weak, teletext errors may occur.

Advanced Teletext Operation

Using Fastext

With Fastext you can access pages with one button press. When a Fastext page is broadcast, a colour-coded menu will appear at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue buttons **[6]** on the Remote Commander.

Press the corresponding colour button **[6]** on the Remote Commander which corresponds to the colour-coded menu. The page will be displayed in a few seconds.

Requesting the Index page

Press **[17]**. The Index page appears.

Accessing the next or preceding page

Press **[18]** (PAGE +) or **[19]** (PAGE -). The next or the preceding page appears on the screen.

Superimposing the teletext display on the TV picture

Press **[11]** once if you are in text mode or press **[11]** twice if in TV mode.

To return to the normal teletext display press **[11]** again.



Preventing a teletext page from being updated or changed

Press **[2]** (HOLD). The HOLD symbol (**[2]**) appears on the screen and the selected subpage is held until you press **[11]** to cancel.

Enlarging the teletext display

Press **[13]** once to enlarge the upper half. Press twice to enlarge the lower half. Press again to restore the normal display.



Revealing concealed information (e.g. answers to a quiz)

Press **[14]** (REVEAL). The information is revealed. Press **[14]** again to conceal the information.

Watching TV while waiting for a requested page to be displayed

- 1 Request a new teletext page.
- 2 Press **[12]** (TEXT CL).
The TV programme is displayed and the symbol **[12]** is displayed at the top of the page.
Note: When the requested page is available the page number is displayed at the top of the screen.

- 3 Press **[11]** to view the page.

Note: To cancel the request
Display the teletext page, then press **[11]**. The request is now cancelled. Press **[3]** to resume TV mode.

Using the Favourite Page system

You can store up to four of your favourite teletext pages per programme with the help of the Favourite page system. In this way you have quick access to the pages you watch frequently.

Storing the Favourite Pages

- 1 Select the page you would like to store using the number buttons **[4]**.
- 2 Press **[15]** twice.
The colour prompts at the bottom of the screen flash.
- 3 Press any of the colour buttons **[6]** on the Remote Commander to store the selected page.
The page is now stored on this button.

Repeat steps 1 to 3 for the other 3 pages available.

Displaying the Favourite pages

- 1 Press **[15]**.
- 2 Press the colour button **[6]** corresponding to the colour prompt onto which the desired page is stored.
The page is requested. (It may take a few seconds to be received).

Note: Step 1 must be taken before every favourite page selection, otherwise the normal Fastext facility operates.

Using the Time Function in the TV mode

Press **[12]** to request the time. Press again to cancel the request.

Note: This function is available only when teletext is broadcast.

Connecting Other Equipment

You can connect optional audio/video equipment to this TV such as VCRs, video disc players, cameras or stereo systems.

Connector	Acceptable input signal	Available output signal
1 M (AV1/RGB)	Audio/video and RGB signal	Audio/video signal from TV Tuner
2 L (AV2) (YC2)	Audio/video and S video signal	Audio/video signal from selected source
3 G H (AV3)	Audio/video signal and	No outputs
3 G I (YC3)	Audio/S video signal	

To watch a video input picture, press 2 until the desired video input appears.

To return to the normal TV picture, press 2 repeatedly or press 3.

Note: If you have a decoder, connect it to 1 **M**.

Connecting a VCR Using the TV Aerial Terminal

Connect the aerial output of the VCR to the aerial terminal **K** of the TV. It is recommended to tune in the VCR signal to programme number "0". For details, see "Tuning in to Channels Manually" on page 18.

Note: S video input (Y/C input) **I** **L**

Video signals may be separated into Y (luminance or brightness) and C (chrominance) signals.

Separating the Y and C signals prevents them from interfering with each other and therefore improves the picture quality (especially luminance). This TV is equipped with 2 video input terminals through which these signals can be input directly.

Checking and Selecting the Input and Output Sources Using the Menu

You can display a menu screen to see which input and output source are selected. You can also change the selection using this menu.

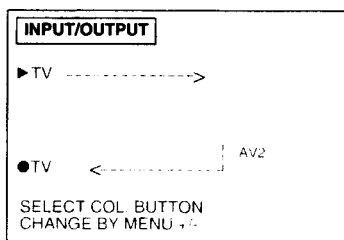
Checking the Input and Output Sources

1 Press MENU 7.

The MENU screen appears

2 Press the blue button 17 to select INPUT/OUTPUT.

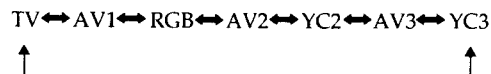
The INPUT/OUTPUT screen appears.



Selecting an Input Signal

Press the red button 17 to select INPUT. Press MENU +/- 9 to select the desired input source.

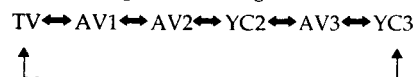
You can select among the following sources:



Selecting an Output Signal

The 2 / 32 connector **L** outputs the source input from the other connectors. Press the green button 17 to select OUTPUT. Press MENU +/- 9 to select the desired output source.

You can select among the following sources:



Note: Press MENU 7 twice or wait until the menu displays disappear automatically to return to the normal screen.

Remote Control of Other Sony Equipment

You can use the TV Remote Commander to control most Sony remote-controlled video equipment such as: Beta, 8mm or VHS VCRs or video disc players.

Tuning the Remote Commander to the equipment

1 Set the VTR 1/2/3 MDP selector 20 according to the equipment you want to control:

- VTR 1: Beta or VCR
- VTR 2: 8mm VCR
- VTR 3: VHS VCR
- MDP: Video Disc Player

2 Use the buttons to operate the additional equipment.

Note: If your video equipment is furnished with a COMMAND MODE selector: set this selector to the same position as the VTR 1/2/3 MDP selector on the TV Remote Commander.

Note: If the equipment does not have a certain function, the corresponding button on the Remote Commander will not operate.

Note: When you use the ● (record) button, make sure to press this button and the one to the right of it simultaneously.

Using Headphones

You can utilise headphones. Connect them to the headphone jack **J**, then the sound from the speakers goes off.

Note: You can't control the sound adjustment except for volume.

For your information

Troubleshooting

Here are some simple solutions to problems which may affect the picture and sound.

No picture (screen is dark), no sound

- Plug the TV in.
- Press   on the TV. (If the standby indicator  is lit, press  or any number button  on the Remote Commander.)
- Check if the selected video source is on.
- Turn the TV off for three or four seconds and then turn it on again using  .

Poor or no picture (screen is dark), but good sound

- Press MENU  to enter the MENU screen, and press the red button , then adjust  and .

Good picture but no sound

- Press  .
- If  is displayed on the screen, press .

No colour for colour programmes

- Press MENU  to enter the MENU screen, and press the red button , then adjust .

Remote Commander does not function

- Replace the battery.

If you continue to have problems, have your TV serviced by qualified personnel. Never open the casing yourself.

Specifications

Television system	B/G/H, D/K
Colour system	PAL, SECAM NTSC 3.58 (video input only) NTSC 4.43 (video input only)
Channel coverage	See "Receivable Channels and Channel Displays"
Picture tube	KV-X2501: Hi-Black Trinitron Approx. 63cm (25 inches) (Approx. 60cm picture measured diagonally) 110° deflection KV-X2901: Hi-Black Trinitron Approx. 72cm (29 inches) (Approx. 68cm picture measured diagonally) 110° deflection
Terminals Rear	 1 21-pin Euro connector (CENELEC standard) - inputs for audio and video - inputs for RGB - outputs of TV video and audio  2  2 21-pin Euro connector - inputs for audio and video - inputs for S video - outputs for audio and video (selectable)
Front	 3 Video input-phono jack  3 Audio input-phono jacks  3 S video input-4-pin DIN  Headphone jack: stereo mini jack
Sound output	2x20W music power

Power consumption KV-X2501: 99W
KV-X2901: 108W

Dimension (WxHxD) KV-X2501
Approx. 575x500x487mm
KV-X2901
Approx. 656x566x518mm

Weight KV-X2501: Approx 33kg
KV-X2901: Approx 45kg

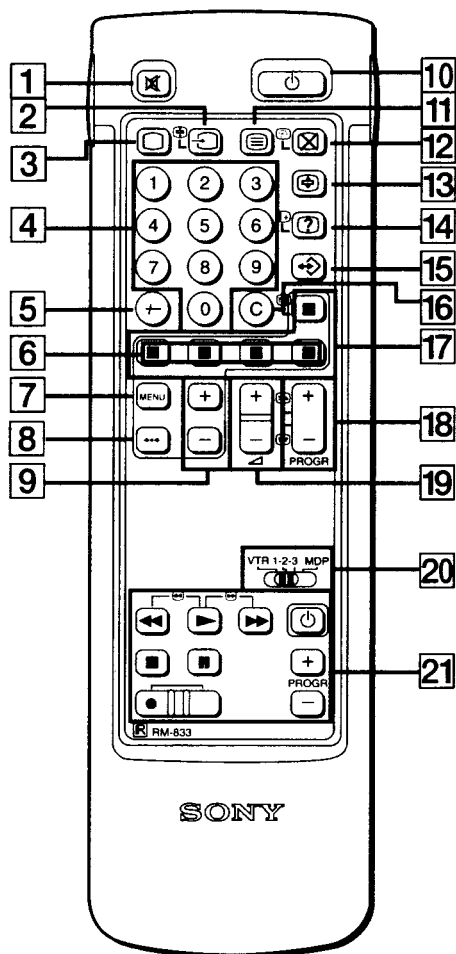
Supplied accessories Remote Commander RM-833,
Battery R6

Other features Fastext/Toptext

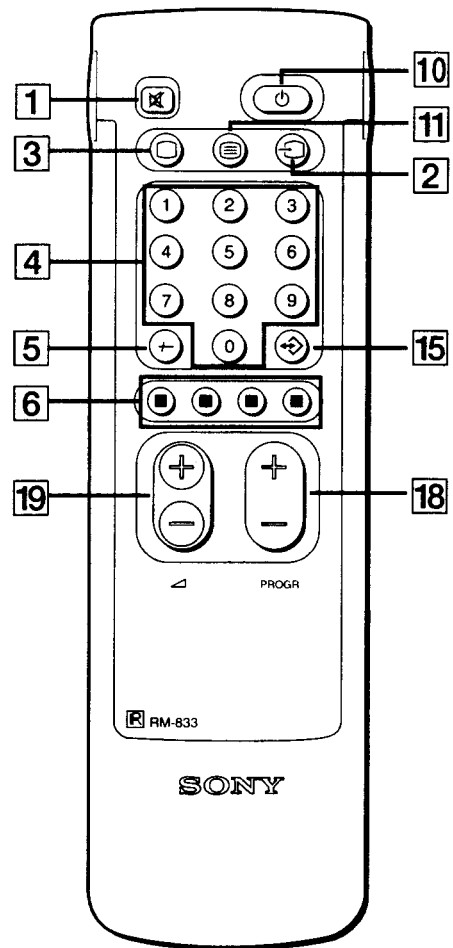
Receivable Channels and Channel Displays

TV System	Receivable Channels	Channel Displays
B/G/H	E2, E3 ... E12	C02, C03 ... C12
	E21, E22 ... E69	C21, C22 ... C69
Cable TV(1)	S1, S2 ... S41	S01, S02 ... S41
Cable TV(2)	S01, S02 ... S05	S42, S43 ... S46
ITALIA	M1, M2 ... M10	S01, S02 ... S10
	U1, U2 ... U10	S11, S12 ... S20
	A, B ... H	C13, C14 ... C20
	H1, H2	C11, C12
D/K	R01, R02 ... R12	C01, C02 ... C12
	R21, R22 ... R69	C21, C22 ... C69

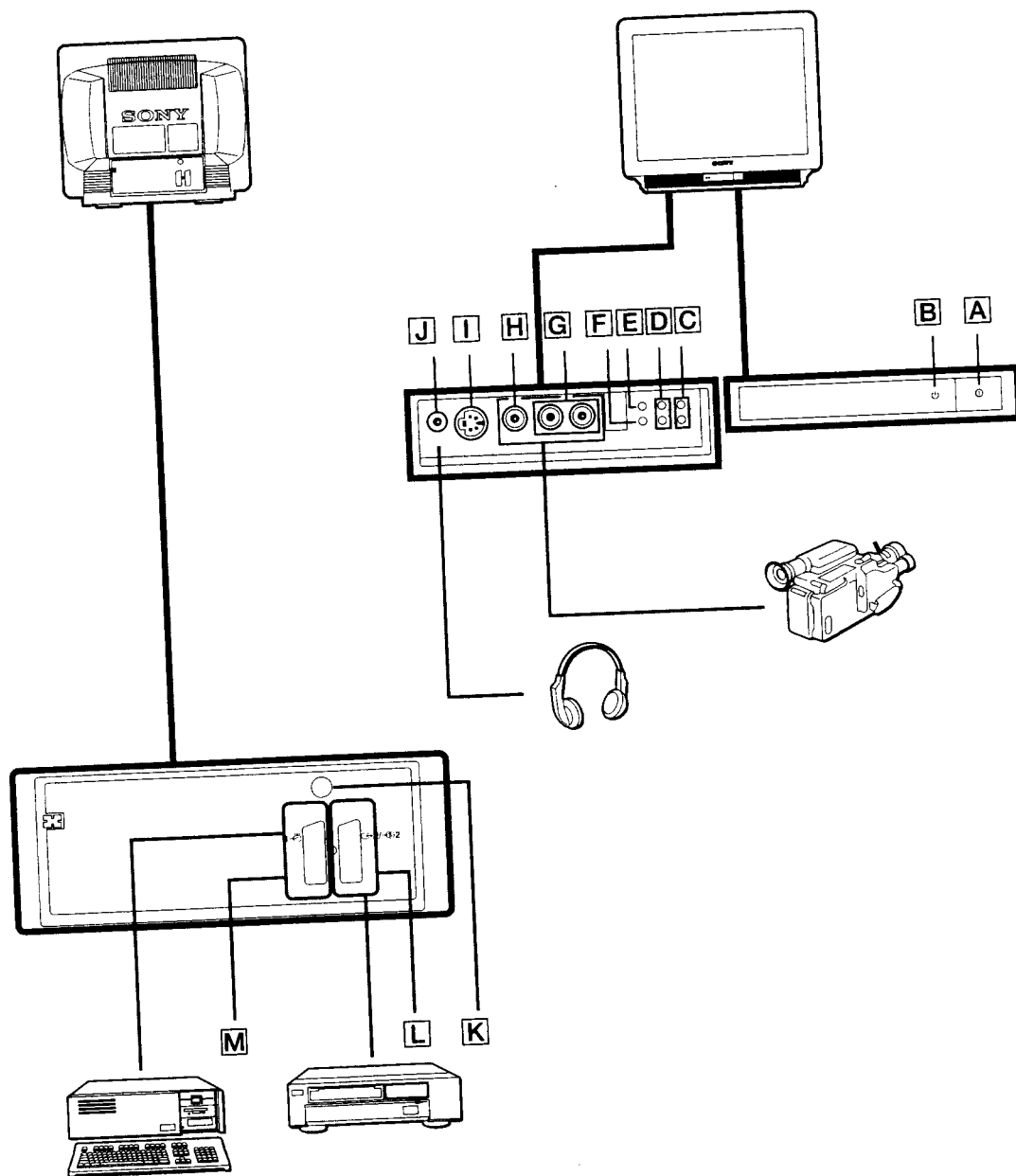
Design and specifications are subject to change without notice.



Full-Function Side

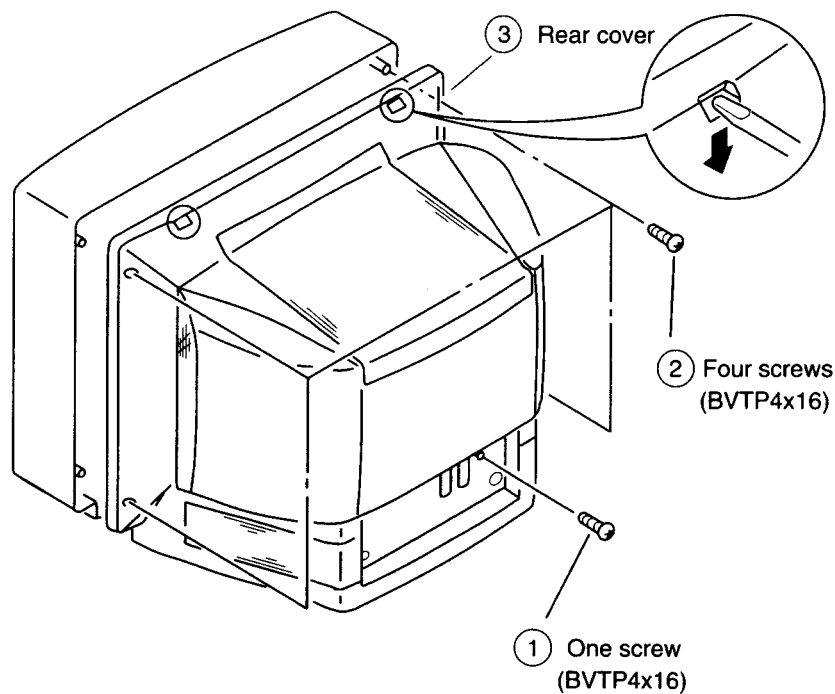


Simple Side

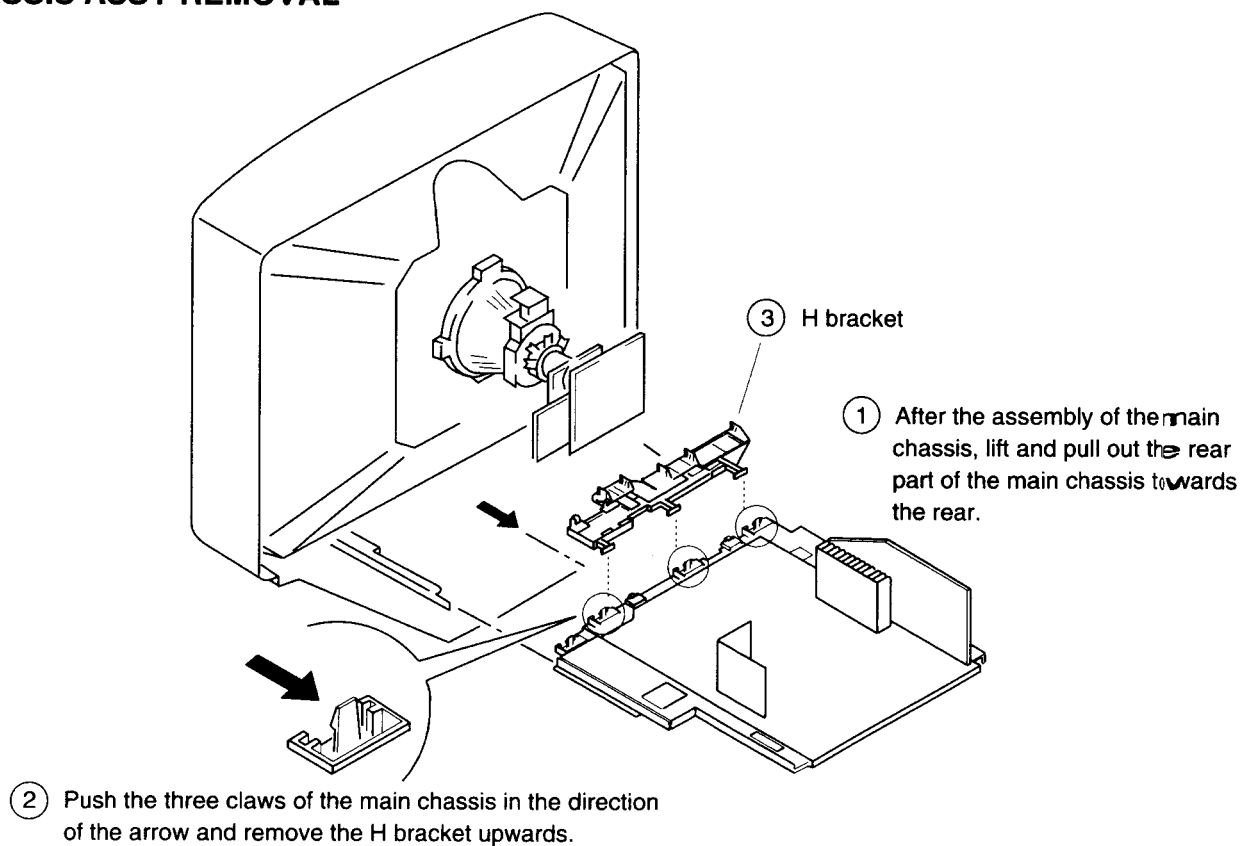


SECTION 2 DISASSEMBLY

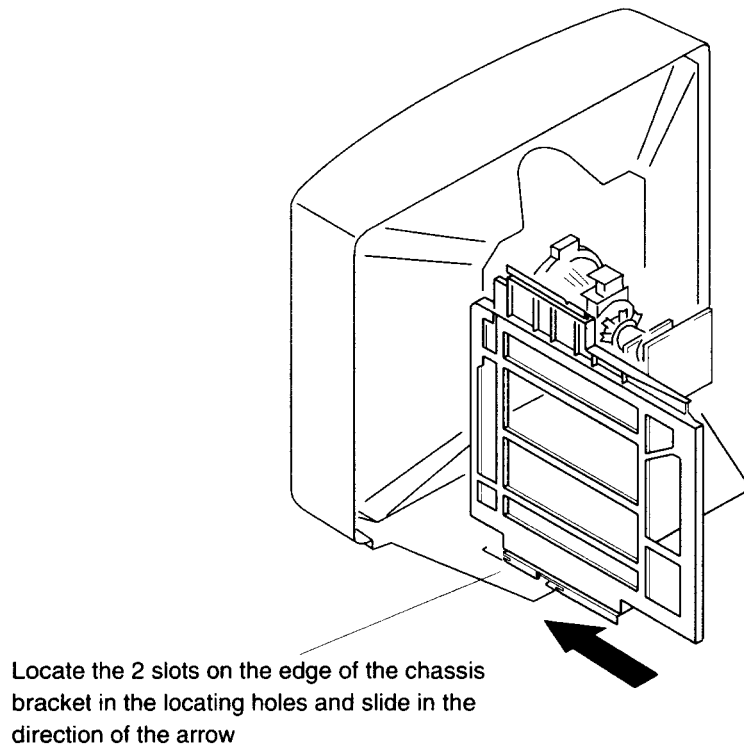
2-1. REAR COVER REMOVAL



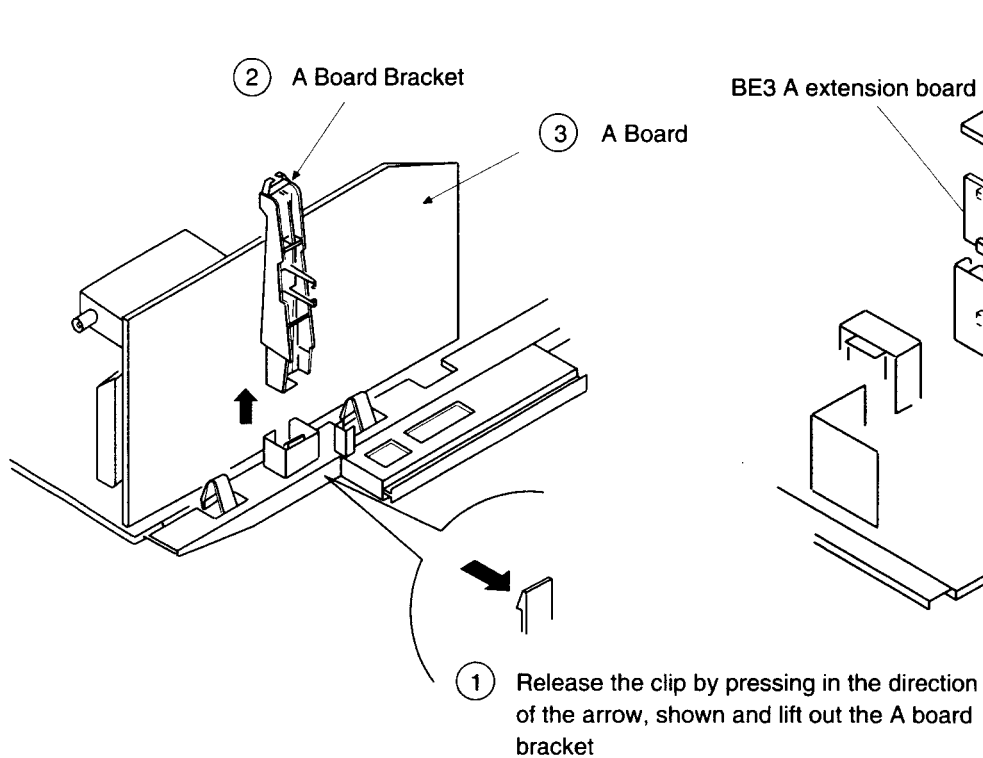
2-2. CHASSIS ASSY REMOVAL



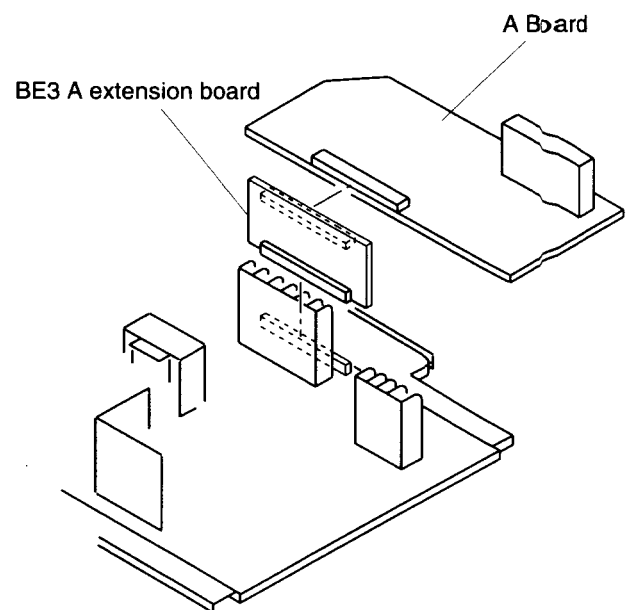
2-3. SERVICE POSITION



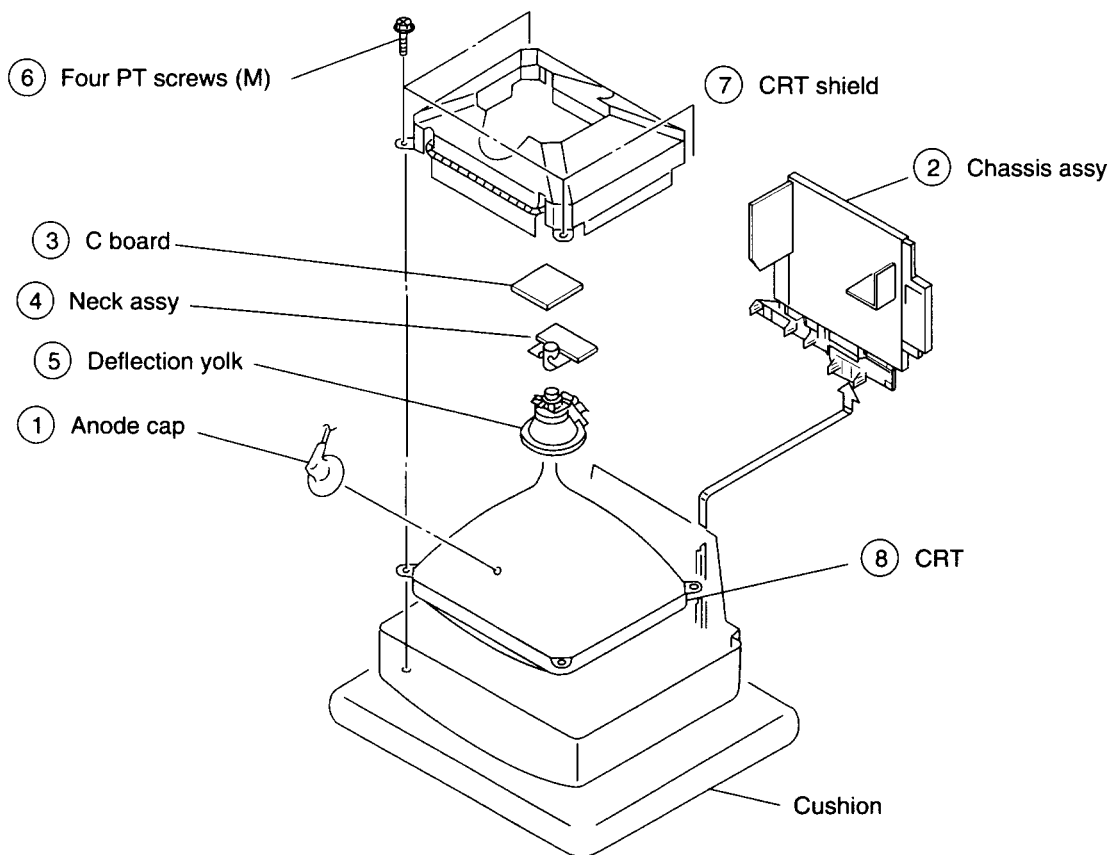
2-4. A BOARD REMOVAL



2-5. EXTENSION BOARD



2-6. PICTURE TUBE REMOVAL



• REMOVAL OF ANODE-CAP

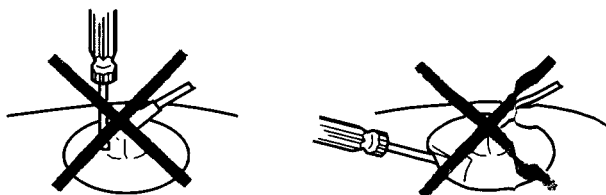
Note: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

* REMOVING PROCEDURES.

-
- ① Turn up one side of the rubber cap in the direction indicated by the arrow (a)
 - ② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow (b)
 - ③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow (c)

• HOW TO HANDLE AN ANODE-CAP

- ① Don't damage the surface of anode-cap with sharp shaped material !
- ② Don't press the rubber hardly not to hurt inside of anode-caps !
A metal fitting called as shatter-hook terminal is built into the rubber.
- ③ Don't turn the foot of rubber over hardly !
The shatter-hook terminal will stick out or damage the rubber.



SECTION 3

SET - UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustments with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches to these settings :

● Contrast 80% (or remote control normal)
 ⚙ Brightness 50%

- Carry out the following adjustments in this order :
 - Beam landing
 - Convergence
 - Focus
 - White balance

Note: Testing equipment required.

- Color bar/pattern generator
- Degausser
- DC power supply
- Digital multimeter
- Oscilloscope

Preparation:

- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

- Input the white signal with the pattern generator.
 CONTRAST } normal
 BRIGHTNESS }
- Position neck assy as shown in Fig.3-2.
- Set the pattern generator raster signal to red.
- Move the deflection yoke forward and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each side. (See Fig. 3-1 - 3-3)
- Move the deflection yoke forward and adjust so that the entire screen becomes red. (See Fig. 3-1)
- Switch the raster signal to blue, then to green and verify the condition.
- When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
- If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Fig. 3-4)

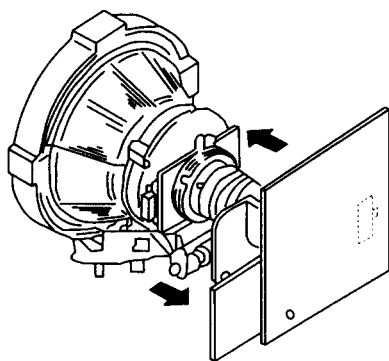


Fig. 3-1

Fig. 3-2

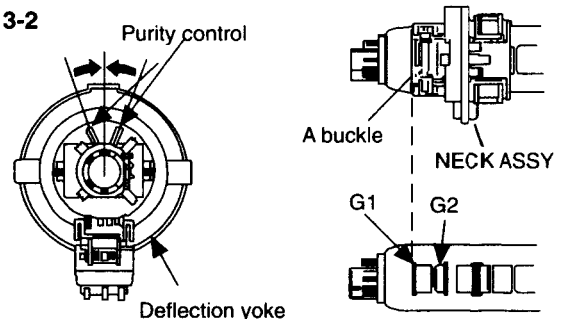


Fig. 3-3

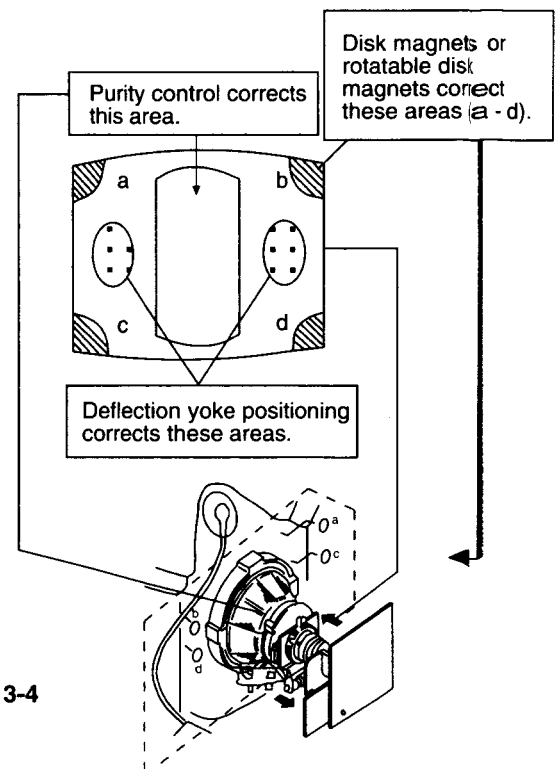
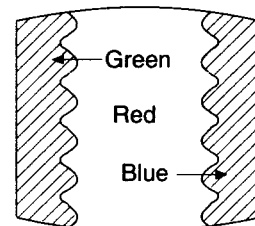


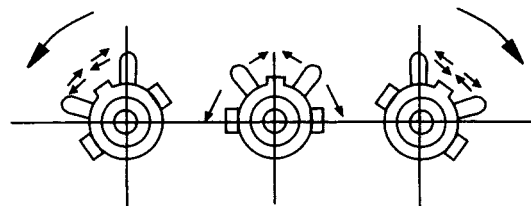
Fig. 3-4

3-2. CONVERGENCE

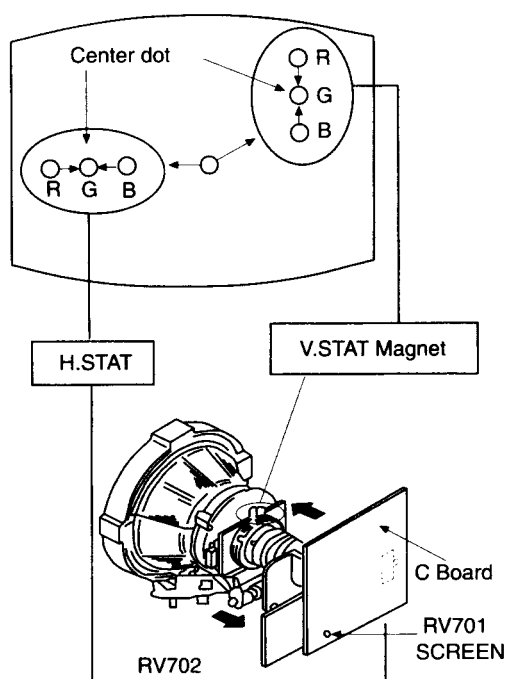
Preparation:

- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide a dot pattern.

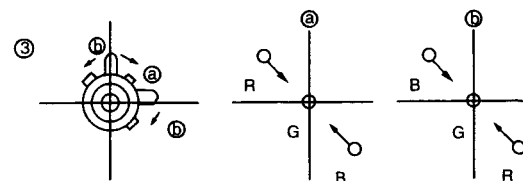
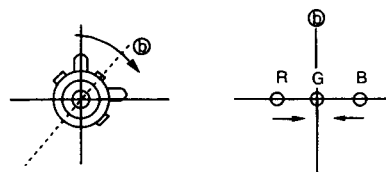
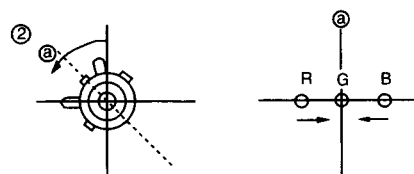
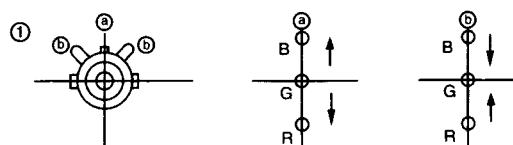
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



(1) Horizontal and vertical static convergence

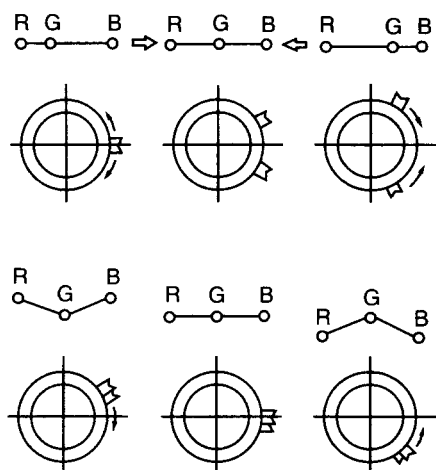


4. If the V.STAT magnet is moved in the direction of the (a) and (b) arrows, the red, green, and blue points move as shown below.

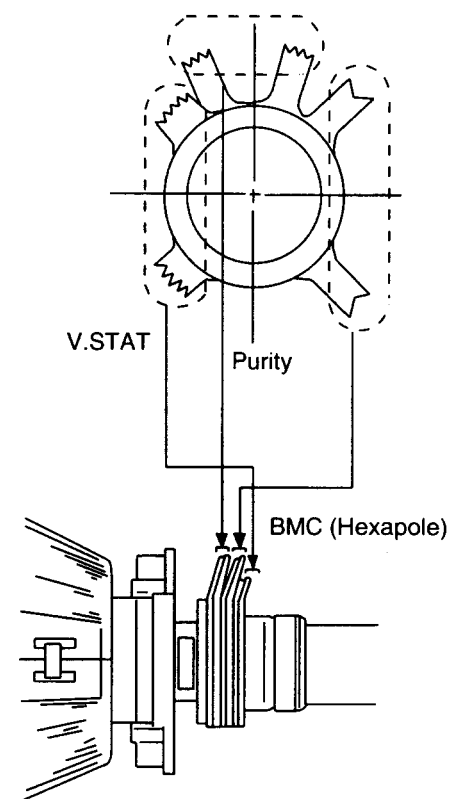


1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.
(In this case, the H.STAT variable resistor and the V.STAT magnet influence each other)

- Operation of BMC (Hexapole) Magnet



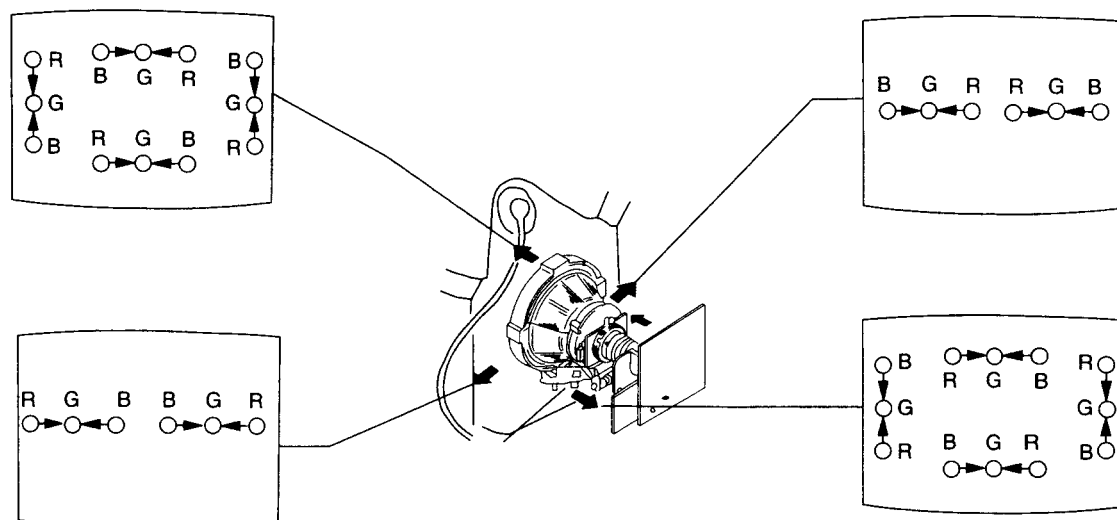
- The respective dot position resulting from moving each magnet interact, so be sure to perform adjustment while tracking.
Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the center of the screen (by moving the dots in the horizontal direction).



(2) Dynamic convergence adjustment.

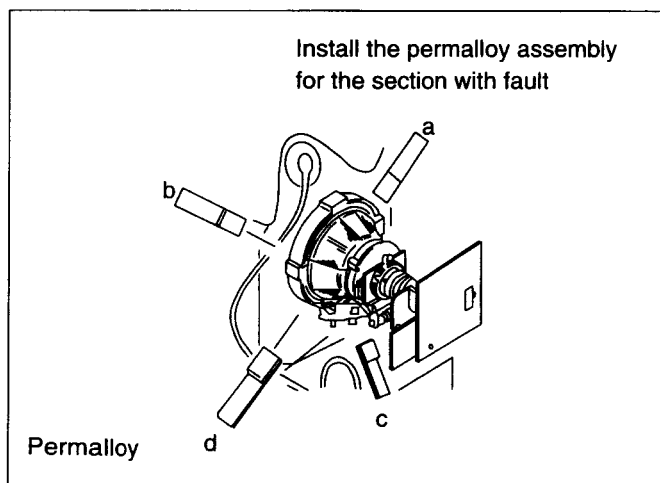
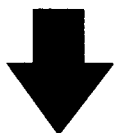
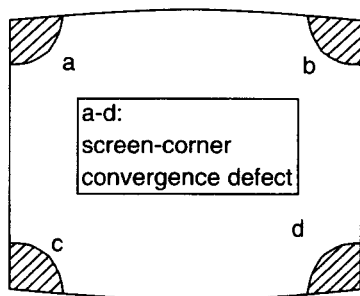
Preparation:

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.
- Slightly loosen the deflection yoke screws.
 - Remove the deflection yoke spacer.
 - Move the deflection yoke as shown in the figure below and optimize the convergence.
 - Tighten the deflection yoke screws.
 - Re-install the deflection yoke spacer.

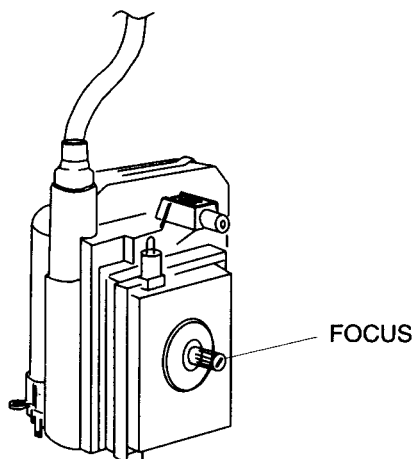


(4) Screen corner convergence.

If you are unable to adjust the corner convergence properly, correct them with the use of permalloy assemblies.

**3-3. Focus**

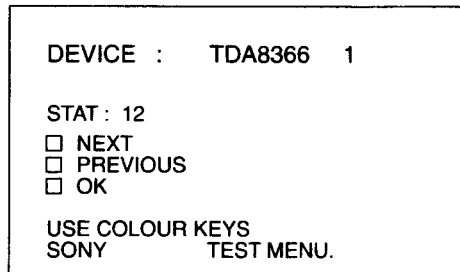
Adjust the focus to optimize the screen.

**3-4. WHITE BALANCE****Screen G2 Setting**

1. Input the dot signal from the pattern generator.
2. Set the picture brightness control to its lowest level.
3. Apply 180V DC to the R,G, and B cathodes with an external power supply.
4. While watching the picture, adjust G2 control RV701 (Screen) to the point just before the return lines disappear.

White balance adjustment

1. Receive an all-white signal.
2. Enter into service mode. (Refer to the section 4 "Electrical Adjustment" on how to enter service mode.)
3. Select TDA8366 1 on menu.



4. Press the White button on the Remote Commander to enter into the device Menu.
5. Press the Red button 10 times "Next" "Next" "Next" to select HWB RED, adjust to 040.
6. Press the Red button to select HWB GREEN, adjust with the + and - menu buttons so that the white balance becomes optimum.
7. Press the Red button to select HWB BLUE, adjust with the + and - menu buttons so that the white balance becomes optimum.
8. Press the TV button twice on the Remote Commander to store the data and return to TV operation.

SECTION 4

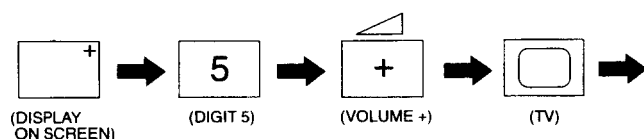
CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied remote commander RM-833.

HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power switch of the set and enter into standby mode.
2. Press the following sequence of buttons on the Remote Commander.



“TT ” will appear in the top right corner of the screen.
Other status information will also be displayed.

3. Press the **MENU** button on the Remote Commander to obtain the menu on the screen.

DEVICE NAME

STAT : xxxx

☐ NEXT
☐ PREVIOUS
☐ OK

USE COLOUR KEYS
SONY TEST MENU.

4. Press the Red (Next) and Green (Previous) buttons to select the device corresponding to the adjustment item from the table. Then press the White button (OK).

DEVICE NAME

00 ADJUSTMENT : xxx

☐ NEXT
☐ PREVIOUS

SELECT COL.BUTTON
CHANGE BY MENU +/-

5. Press the Red (Next) or Green (previous) buttons to select the adjustment item. Then press the **+** and **-** buttons to change the data to comply with each standard.
6. Turn off the power to quit the service mode when adjustments are completed.

Initial Conditions for setup of TDA8366, TDA6612 and SAA7283. (Stereo Models Only)

TDA8366 1	INIT VALUE	TDA8366 2	INIT VALUE
Hue	31	Interlace	00
H Shift	Adj	Sync Mode	00
H Size	Adj	Col Dec	00
Pin Amp	Adj	Vert Div	00
Corn Pin	Adj	Vid ID	00
Tilt	Adj	EHT Track	01
V.Linear	Adj	En V Grd	00
V.Size	Adj	Serv Blk	00
S.Corr	Adj	OVP Mode	00
V.Cent	Adj	Aspect R	00
HWB Red	Adj	Start Freq	00
HWB Green	Adj	Y/C Input	00
HWB Blue	Adj	PAL/NTSC	00
Peaking	8	Xtal PLL	00
Bright	32	Y Delay	07
Colour	32	RGB Blk	00
Picture	37	Noise Cor	00
AGC Set	00	Fast Blk	01
Src Sel 1	00	AFC Wind	00
Src Sel 2	00	IF Sensy	00
Time Con	03	Mod Std	00
Xtal Ind	03	Vid Mute	01
FF Freq	02		

TDA6612	INIT VALUE	TDA6612	INIT VALUE
MPX Per	00	Mute 2	01
Quasi St	00	C1/2LS	00
Bass Exp	00	C1/2KH	00
H Pulse	00	Mono	01
Matrix St	00	Scart	00
Bypass	00	Scart D	00
Vol L Sp	07	AM	00
Vol R Sp	07	SAA7283	INIT VALUE
Vol HP	00	Mon M1/M2	01
PII Sync	00	DM Select	01
Mute 3	01	SSWIT 123	07
Treble	08	Port 2	00
Bass	09	Mute Def	00
X Talk Adj	Adj	AMDIS	00
Mute 1	00	E Max	80
		E Min	01

4-2. TEST MODE 2 :

Is available by pressing Test button twice, OSD 'TT ' appears. The functions described below are available by pressing the two numbers. To release the Test Mode 2, press 0 twice, or switch the TV into Stand-by Mode.

00	switch Test Mode 2 off
01	picture maximum
02	picture minimum
03	Volume 35%
04	Volume 50%
05	Volume 65%
06	Volume 80%
07	Ageing Condition (Volume min., Picture max., Brightness max.
08	Shipping Condition (Analog Values are RESET due to factory setting, Prog 1 is selected, TT Mode is switched off)
09	"Menu" Flag request
10	Tenth entry is deleted
11	dummy
12	dummy
13	dummy
14	Forced AV 16:9 detection on/off
15	Read factory setting from NVM Reads Volume, Balance, Treble, Bass, Brightness, Contrast, Hue, Sharpness, Colour values from ROM to the actual used values (Last Power Memory)
16	Save actual used values as RESET values Memorize actual used values Balance, Treble, Bass, Hue, Sharpness at RESET position in NVM.
17	Preset Label for AV Sources
18	RGB Priority on/off
19	Clear all preset labels
20	Tenth entry is deleted
21	Sub Contrast
22	Sub Colour
23	Sub Brightness
24	Set destination = U RGB Priority = Off
25	Set destination = D RGB Priority = Off
26	Set destination = B RGB Priority = On
27	Set destination = K RGB Priority = Off
28	Set destination = L RGB Priority = Off
29	Set destination = E RGB Priority = Off

30	Tenth entry is deleted
31	Set Destination = A RGB Priority = On
32	dummy
33	Auto AGC
34	N/S Pin Adjust
35	Manual AGC Adjust
36	dummy
37	dummy
38	dummy
39	dummy
40	Tenth entry is deleted
41	Re-initialise NVM
42	Production use only
43	Initialise Geom Settings
44	Initialise all favorite pages = 100
45	Channel locks = off
46	IR Channel Presetting Mode The channel presetting can be done by a Special IR Transmitter (Ver 2 and above software only)
47	dummy
48	Set NVM testbyte to 44h
49	Erase the NVM Testbyte (this byte detects already stored NVM's) After selecting this function, switch TV Off and On -> the NVM will be preset by μ -Controller.

In Test Mode the Menu display is switchable by the Speaker-Off button.

Note : For Test Modes 41 - 49 it is necessary to ensure that the TV is set to Prog 59.

SUB BRIGHTNESS ADJUSTMENT

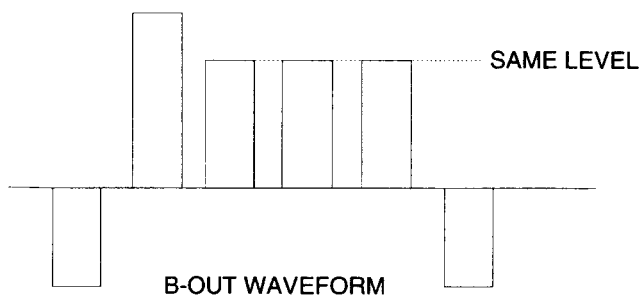
1. Input a Phillips pattern.
2. Enter into service mode and press 23.
3. Adjust data so that 0-IRE of grey scale and CUT-OFF 20-IRE are only slightly visible on screen.

SUB CONTRAST ADJUSTMENT

1. Input a video that contains a small 100% area on a Black Background.
2. Enter into service mode and press 01 to have PIC max followed by 21.
3. Connect oscilloscope to pin ① of CN703 (R OUT) and adjust HWB Red data of TDA8366 1 to obtain 2.3Vp-p.

SUB COLOR ADJUSTMENT

1. Input a PAL color bar signal.
2. Connect an oscilloscope to pin ③ of CN703 (B OUT) on the C board.
3. Enter into service mode and press 22.
4. Adjust data so that the right sides of the waveform are set to the same level.

**STEREO SEPARATION ADJUSTMENT**

1. Input a 1KHz stereo signal to the L-ch and a 400Hz stereo signal to the R-ch.
2. Enter into service mode and select the "Test Menu" to be TDA6612.
3. Select the Stereo Xtalk Adjustment Menu, by using the Red (Next) and Green (Previous) buttons.
4. Monitor the Scart 1 L-channel output and adjust the data so that the R-channel sound is not detected in the L-channel.

I.F. COIL ADJUSTMENT (T101) - B/G, D/K, I AND L STANDARD FOR CONTINENTAL MODELS.

1. Apply a 38.9MHz signal at 100dBuV to the input of SWF101.
2. Receive a channel so that the I.C. is selected for negative modulation.
3. Measure the voltage at the AFT test point and adjust (T101) to obtain 2.4V +/- 0.2V.

I.F. COIL ADJUSTMENT (T101) - I, STANDARD FOR U.K. MODELS.

1. Apply a 39.5MHz signal at 100dBuV to the input of SWF101.
2. Receive a channel so that the I.C. is selected for negative modulation.
3. Measure the voltage at the AFT test point and adjust (T101) to obtain 2.4V +/- 0.2V.

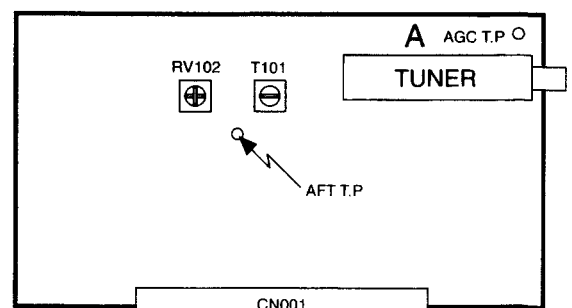
L, BAND 1 ADJUSTMENT (RV102) - L, STANDARD FOR FRENCH MODELS.

1. Apply a 33.95MHz signal at 100dBuV to the input of SWF101.
2. Receive a channel so that the I.C. is selected for positive modulation and system L band 1.
3. Measure the voltage at the AFT test point and adjust (RV102) to obtain 2.4V +/- 0.2V.

Note : Only adjust RV102 after T101 has been correctly adjusted.

AGC ADJUSTMENT

1. Receive an off- air signal.
2. Enter the service mode, ("Test" "Test") and 35.
3. Adjust the data so that there is no snow or cross - modulation visible on the screen.
4. Change the receiving off-air channel, and confirm the above status.



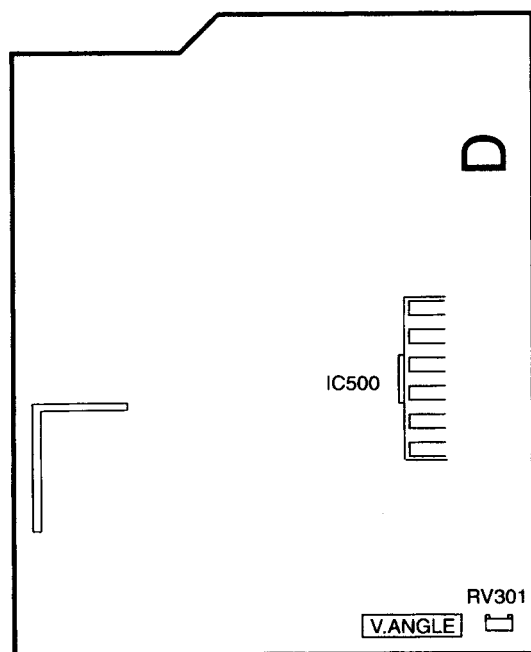
- A Board component side -

DEFLECTION SYSTEM ADJUSTMENT

1. Enter into service mode.
2. Select and adjust each item in order to obtain the optimum image.

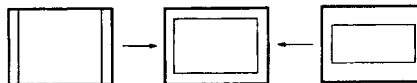
Item No	Adjustment item.	Data Amount
03	H SHIFT	ADJ.
04	H SIZE	ADJ.
05	PIN AMP	ADJ.
06	CORR PIN	ADJ.
07	TILT	ADJ.
08	V LINEAR	ADJ.
09	V SIZE	ADJ.
0A	S CORR	ADJ.
0B	V CENTER	ADJ.

Note : V ANGLE is adjusted by a Variable Resistor on the 'D' Board (RV301)

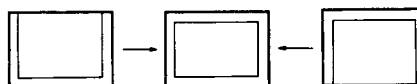


- D Board Component Side -

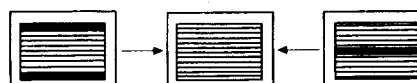
V SIZE



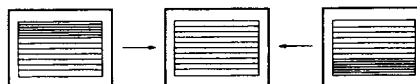
V CENTER



S CORR



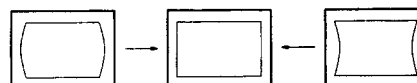
V LIN



H SIZE



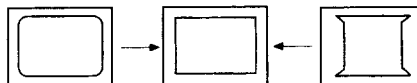
PIN AMP



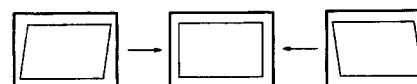
TILT



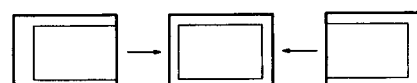
CORR PIN



V ANGLE



H SHIFT



4-3. BE3 SELF DIAGNOSTIC SOFTWARE

The identification of errors within the BE-3 chassis is triggered in 1 of 2 ways :- 1: Bus busy or 2: Device failiure to respond to IIC. In the event of one of these situations arrising the software will first try to release the bus if busy (Failiure to do so will report with continous flashing LED) and then communicate with each device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the led (Series of flashes which must be counted) See Table 1., on fatal errors are reported with this method.

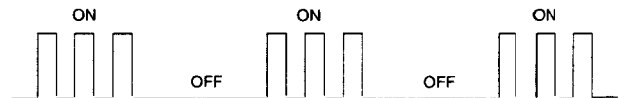
If a fatal error is found the set will simply stay in whichever state it was when the error occurred, but if a non fatal error occurs the set will try to continue operation.

Table 1

Device	LED Error Count	Fatal Error
NVM	2 .. 9	√
Teletext	10	
Jungle	11	√
Video_sw	12	
Tuner	13	√
Nicam	14	
Audio_cont	15	√

Flash Timing Example : e.g. error number 3.

Stby LED

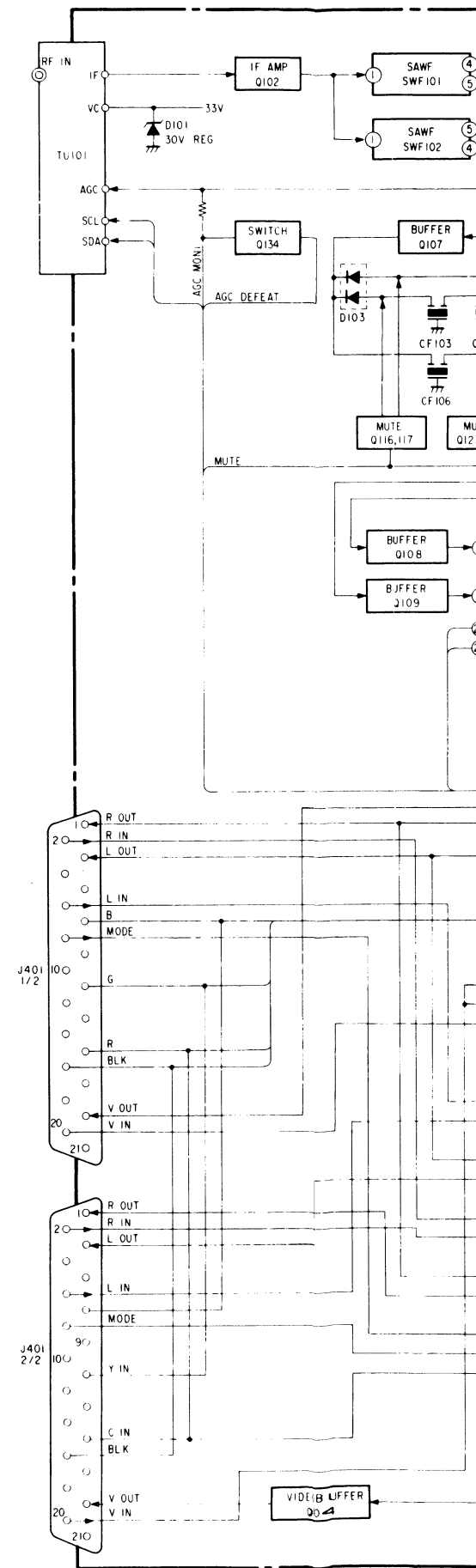
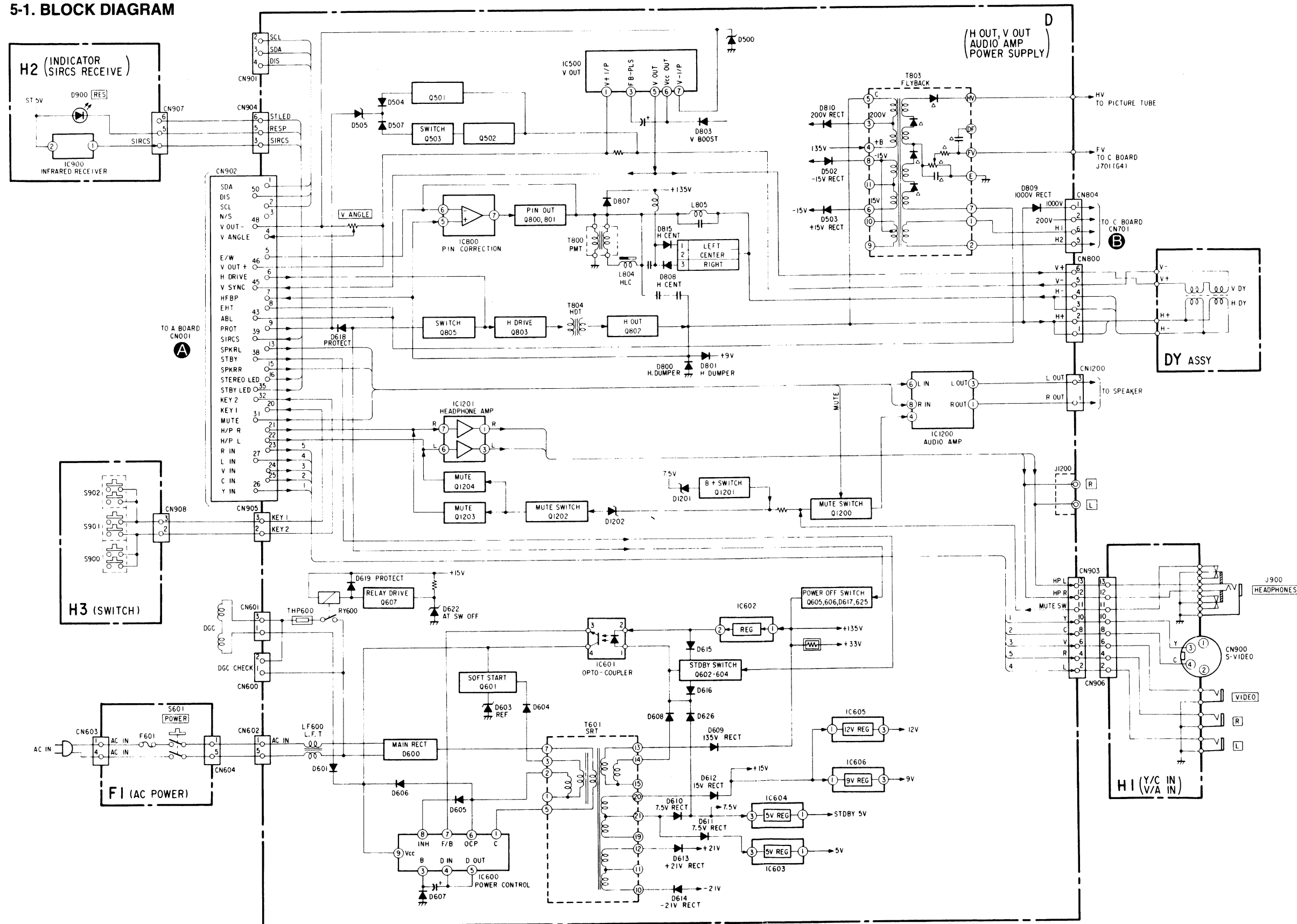


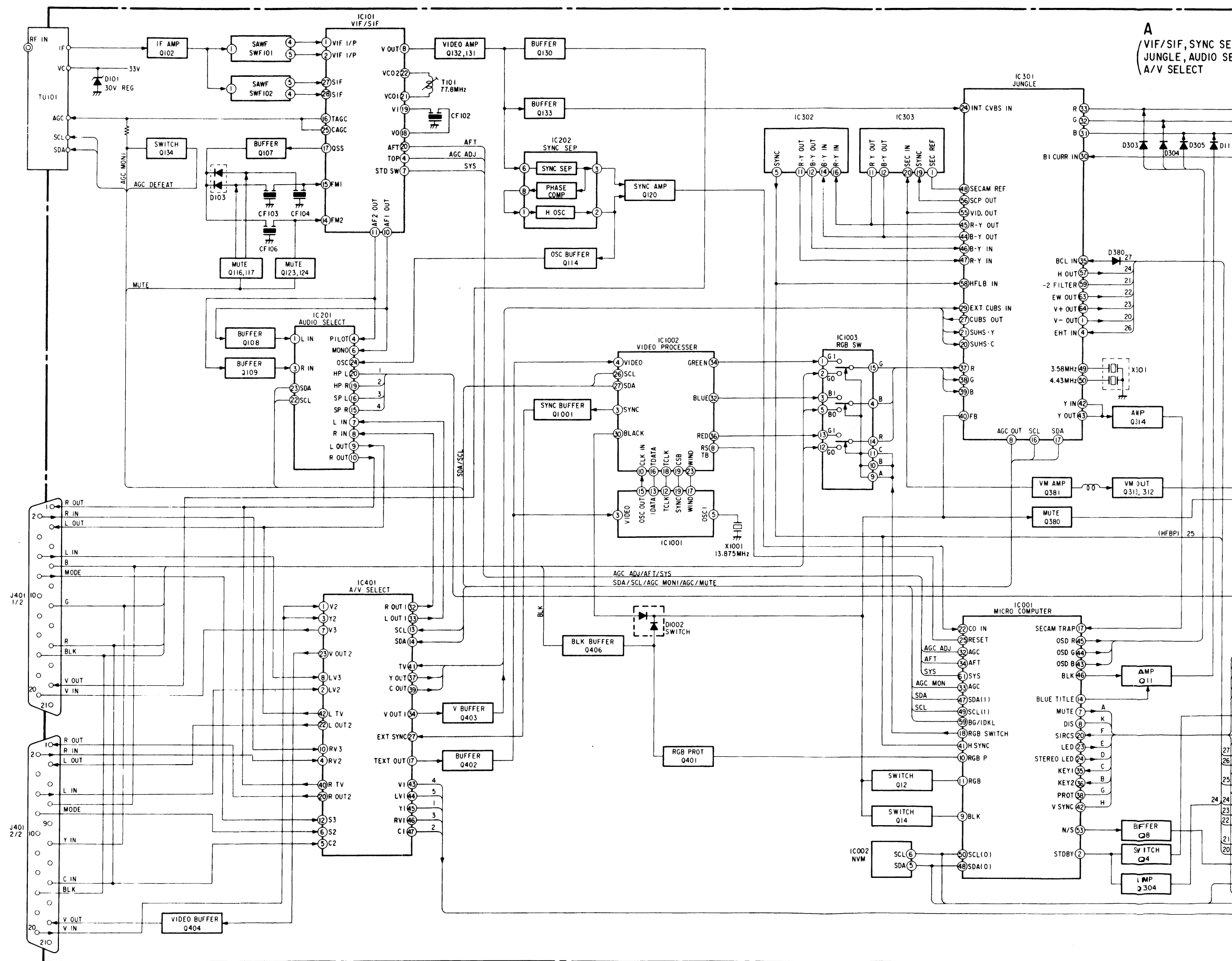
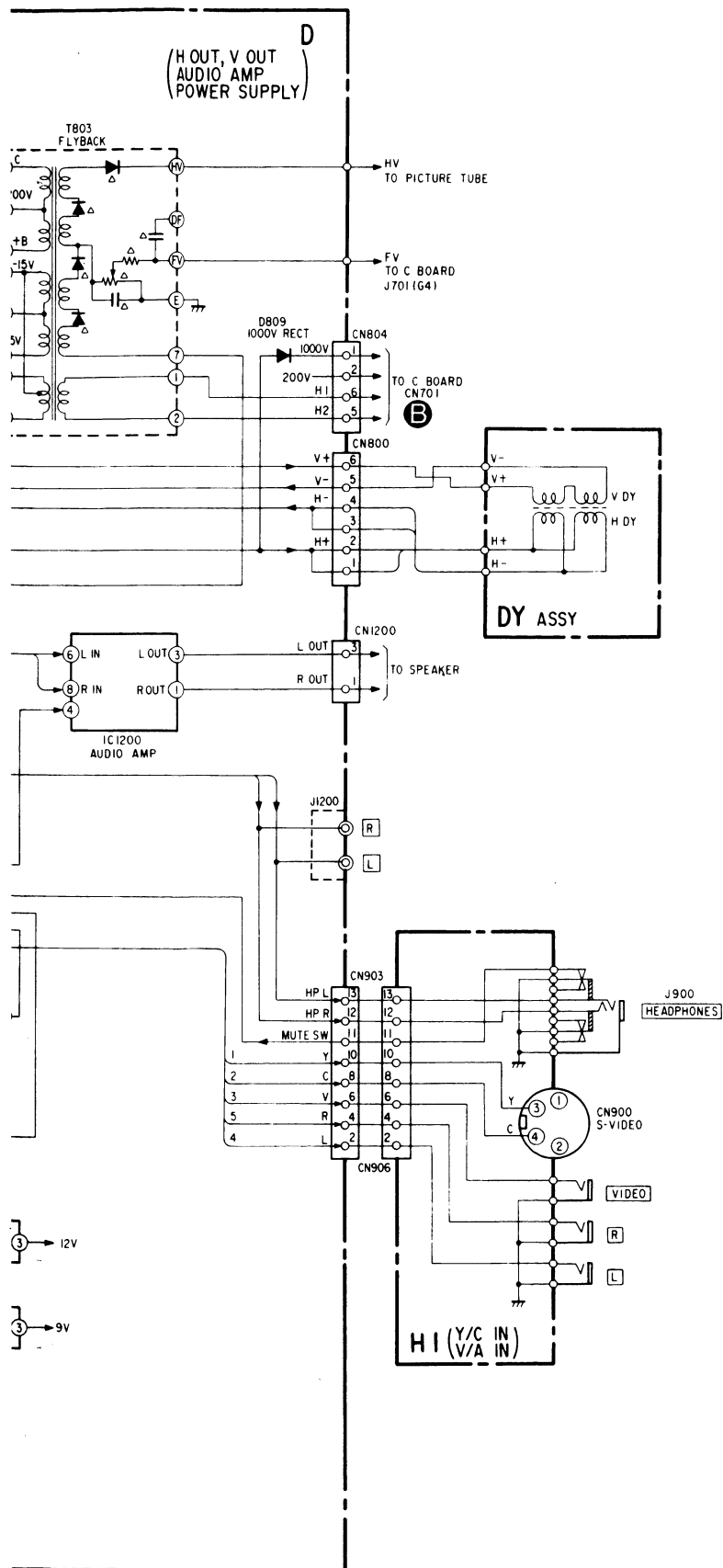
MEMO

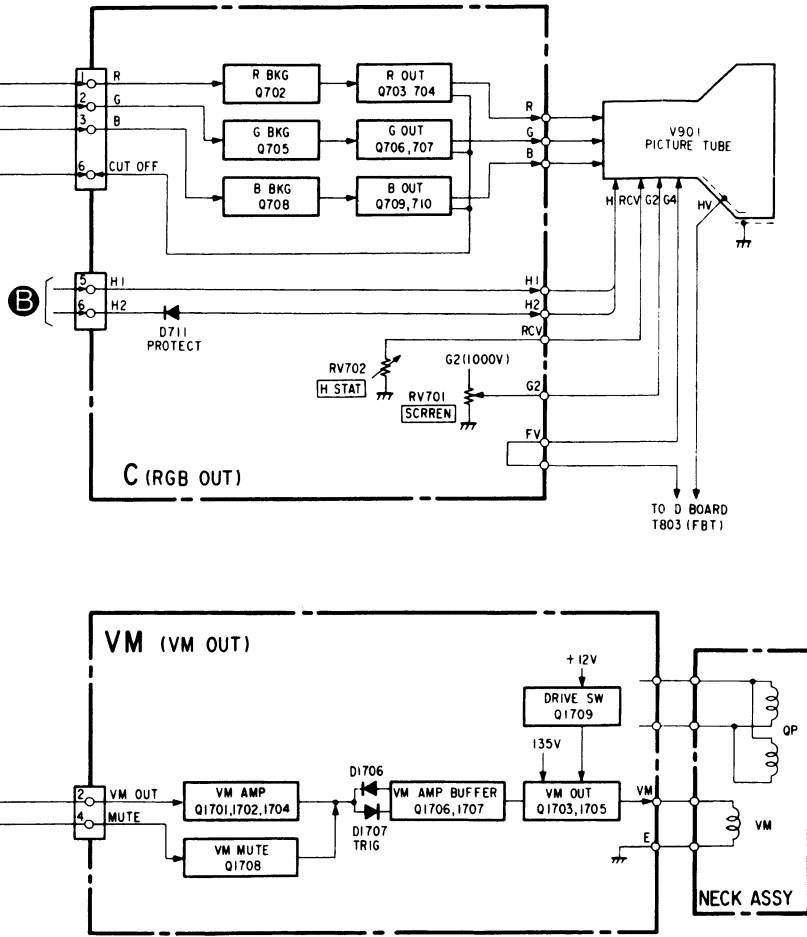
Handwriting practice lines consisting of 20 horizontal lines.

SECTION 5
DIAGRAMS

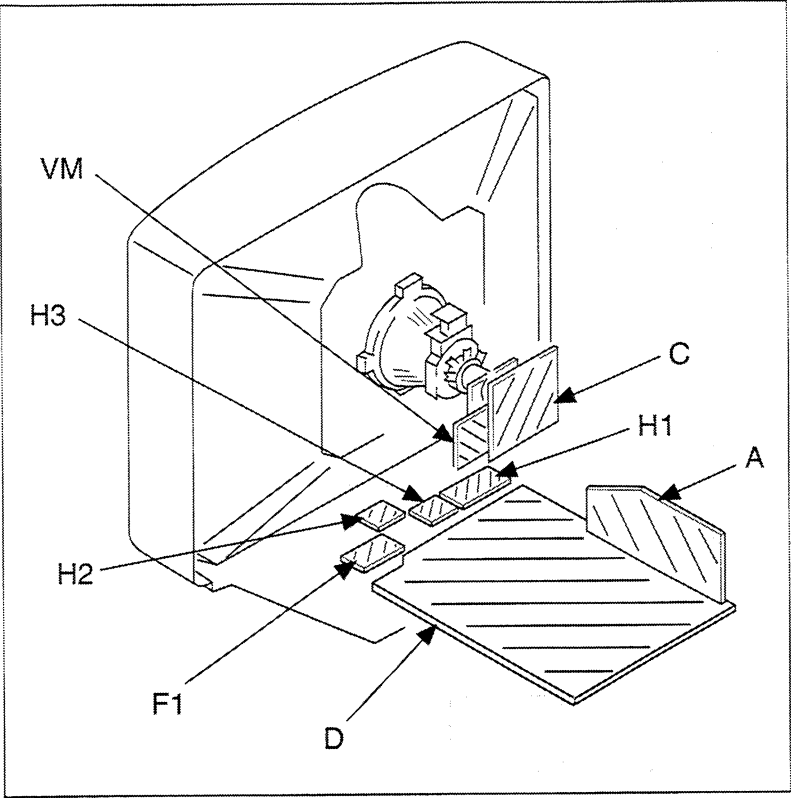
5-1. BLOCK DIAGRAM







5-2. CIRCUIT BOARDS LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

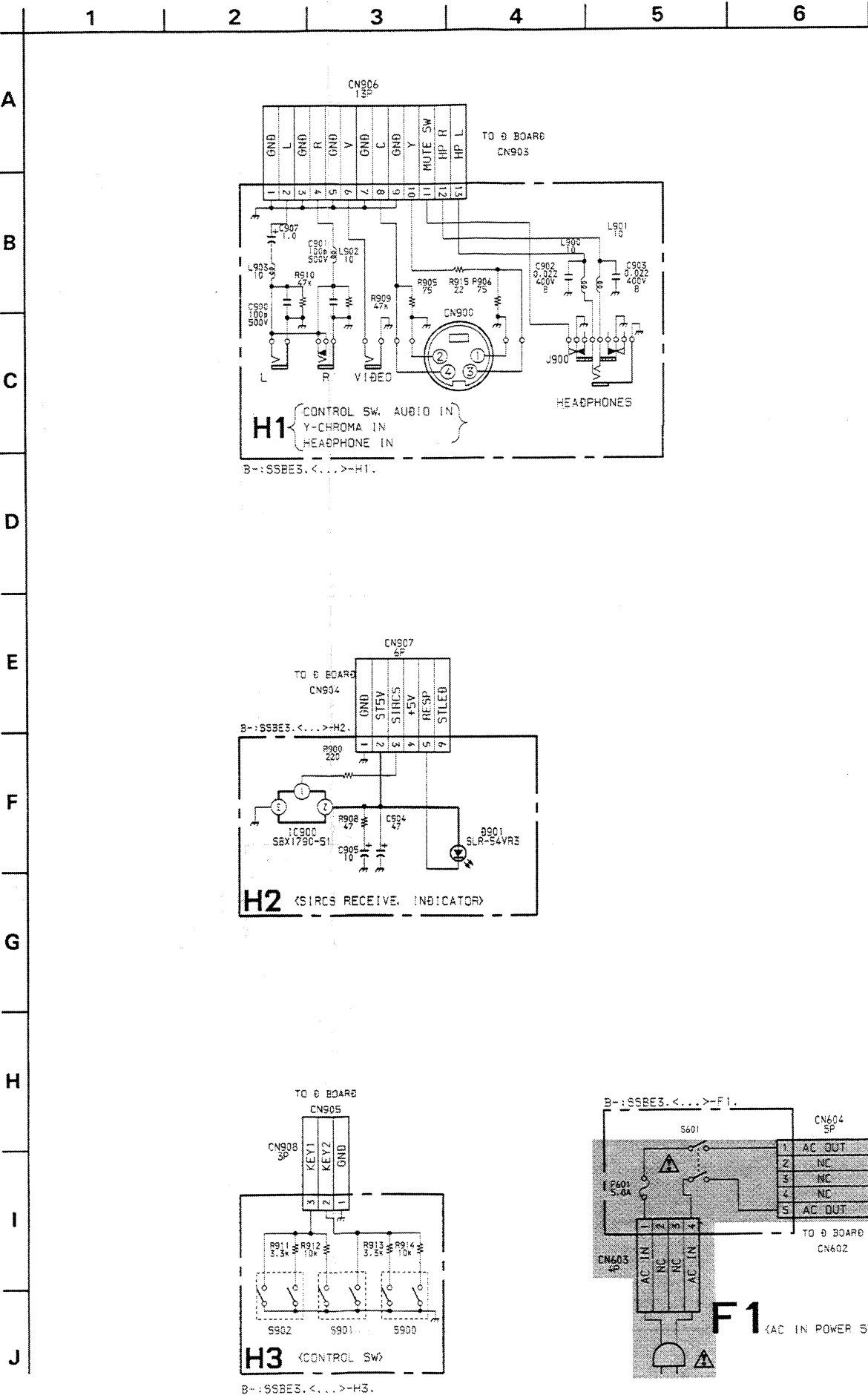
- Note :
- All capacitors are in μF unless otherwise noted.
 pF : $\mu\mu F$ 50WV or less are not indicated except for electrolytic.
 - Indication of resistance, which dose not have one for rating electrical power, is as follows.
Pitch : 5mm
Rating electrical power : $\frac{1}{4}W$
 - Chip resistor is in $1/10W$.
 - All resistors are in ohms.
 $k\Omega = 1000\Omega$, $M\Omega = 1000K\Omega$
 - : nonflammable resistor.
 - : fusible resistor.
 - Δ : internal component.
 - : panel designation or adjustment for repair.
 - All variable and adjustable resistors have charactristic curve B, unless otherwise noted.
 - All voltages are in V.
 - Readings are taken with a $10M\Omega$ digital multimeter.
 - Readings are taken with a color-bar signal input.
 - Voltage variations may be noted due to normal production tolerances.
 - : B+ bus.
 - : B- bus.
 - : signal path.(RF)
 - : earth - ground
 - : earth - chassis

Reference information

RESISTOR	RN	: METAL FILM
	RC	: SOLID
	FPRD	: NONFLAMMABLE CARBON
	FUSE	: NONFLAMMABLE FUSIBLE
	RS	: NONFLAMMABLE METAL OXIDE
	RB	: NONFLAMMABLE CEMENT
	RW	: NONFLAMMABLE WIREWOUND
	*	: ADJUSTMENT RESISTOR
COIL	LF-8L	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

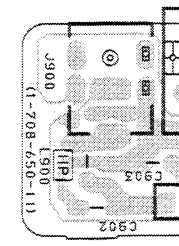
Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et par une marque sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

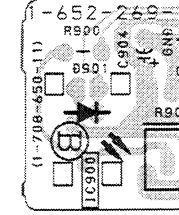


H1

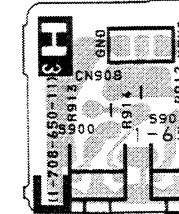
- H1 BOARD



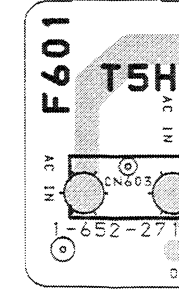
- H2 BOARD

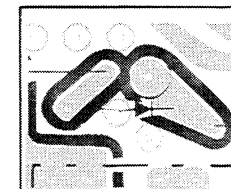


- H3 BOARD



- F1 BOARD





NOTE:
The circuit in
600 Vp-p. Car
inspection or r

H1 CONTROL SW, AUDIO IN
Y-CHROMA IN, HEADPHONE IN

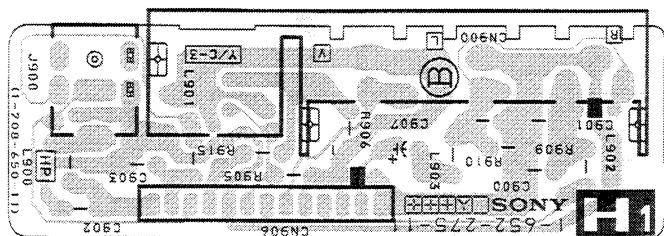
H2 SIRCS RECEIVE
INDICATOR

H3 CONTROL SW

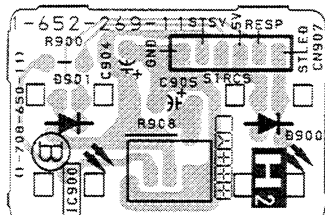
F1 AC IN POWER SW

D HV OUT
PIN OUT
POWER SUPPLY

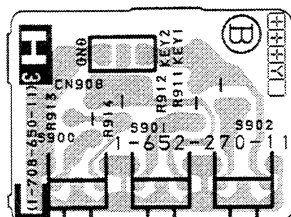
- H1 BOARD -



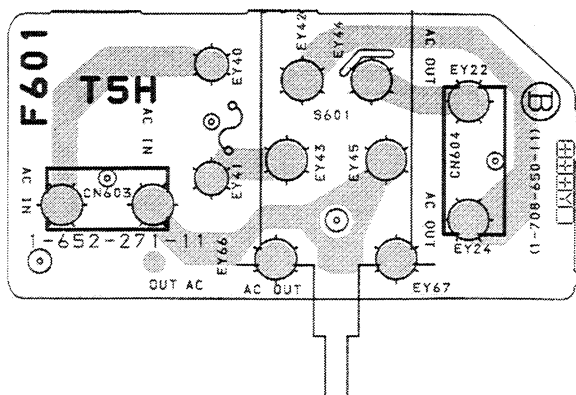
- H2 BOARD -



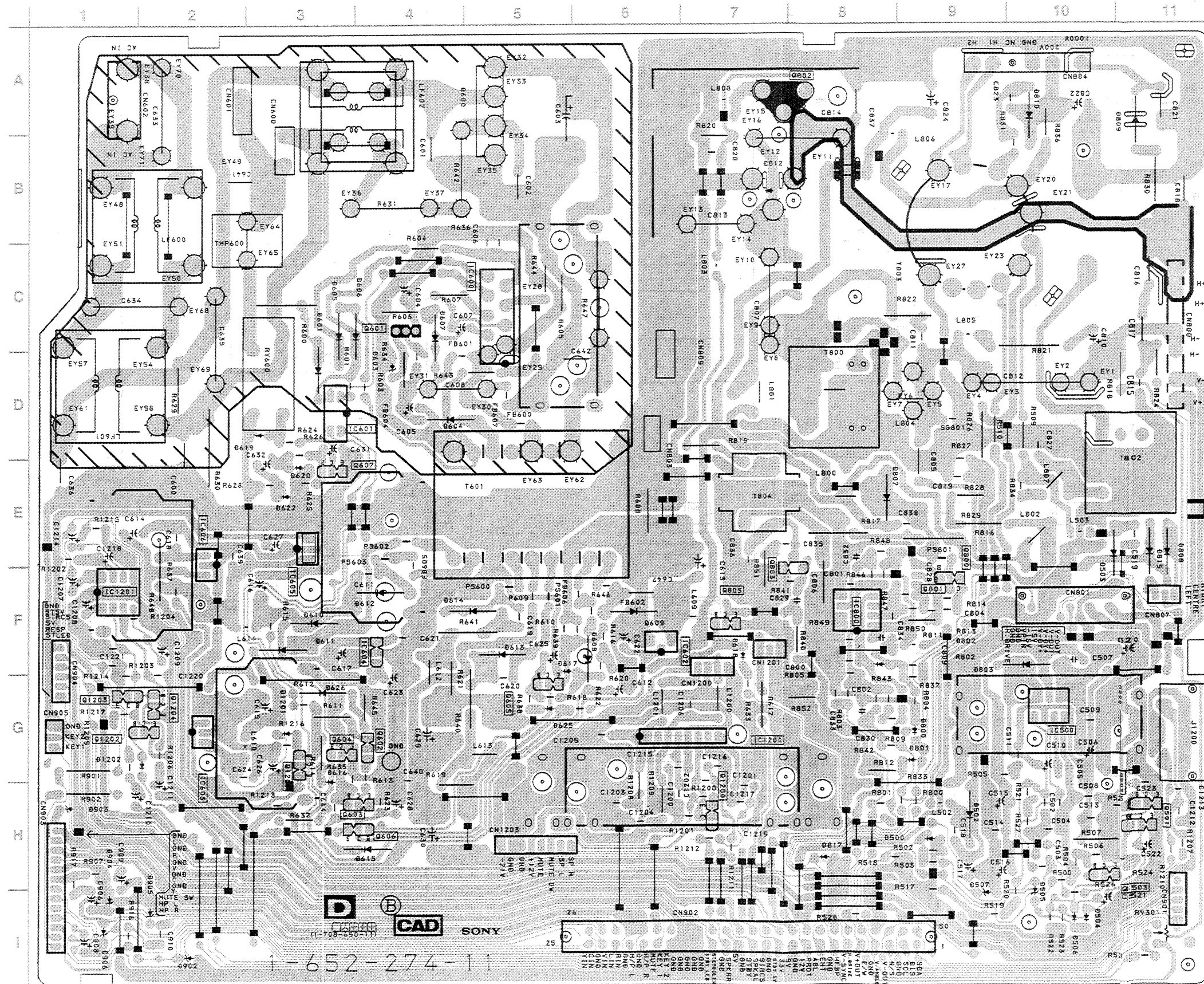
- H3 BOARD -



- F1 BOARD -



- D BOARD -

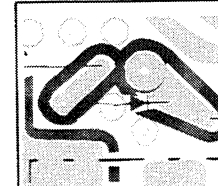


CN604
SP
AC-DUT
NC
NC
NC
AC-DUT
TO B BOARD
CN602

N POWER SW

KV-X290

KV-X290



NOTE:

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

12

SIRCS RECEIVE
INDICATOR

H3

[CONTROL SW]

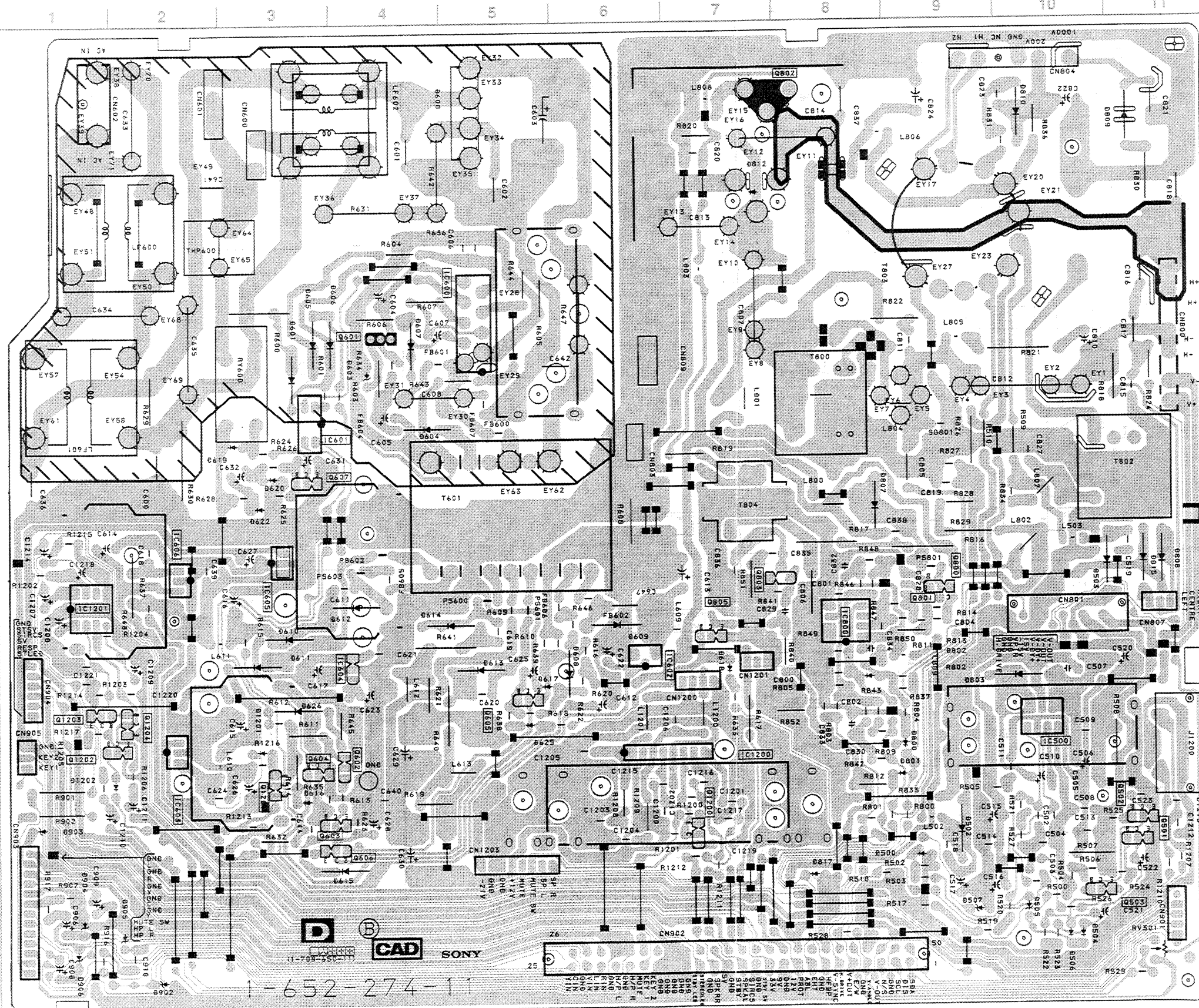
F1

[AC IN POWER SW]

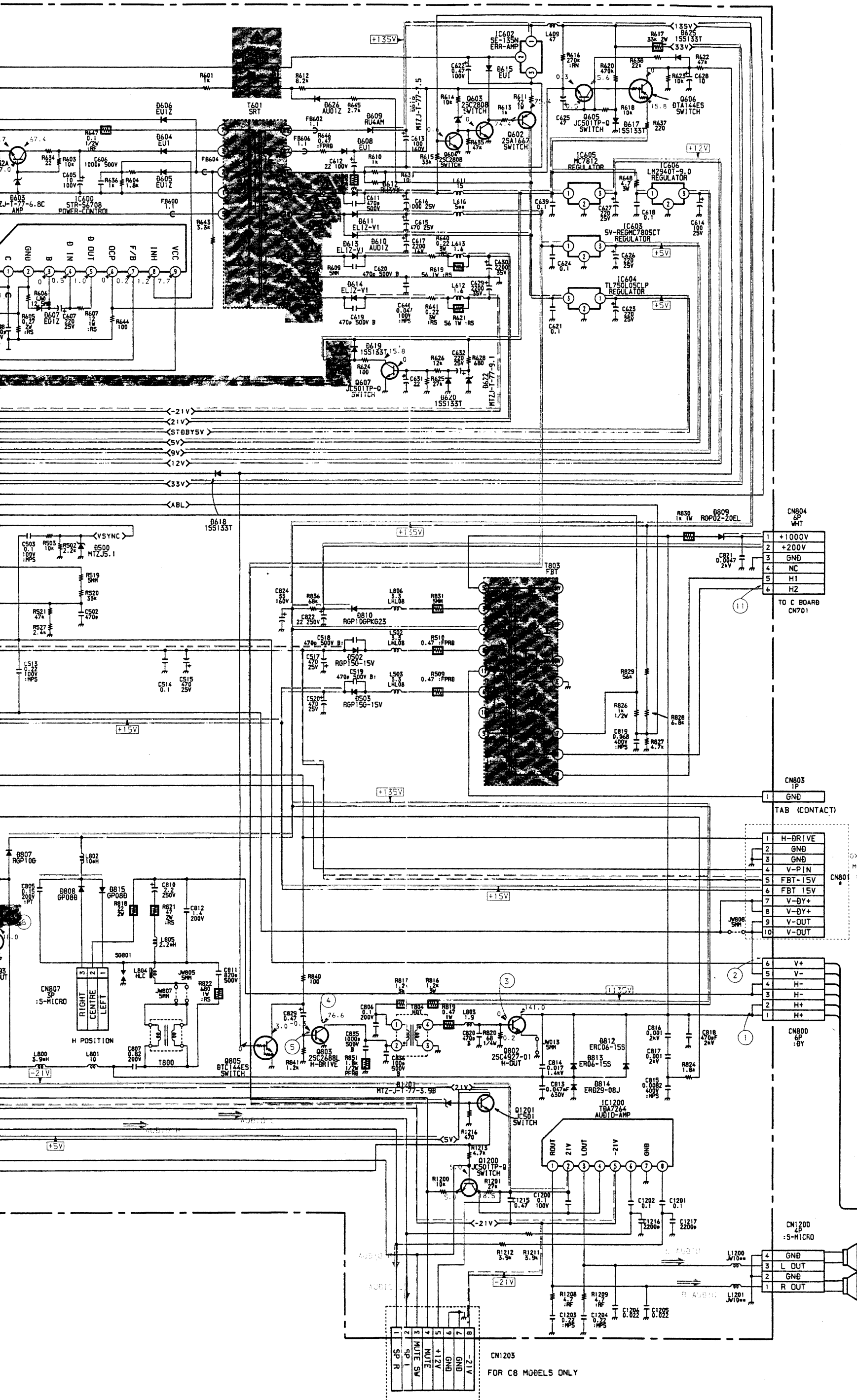
D

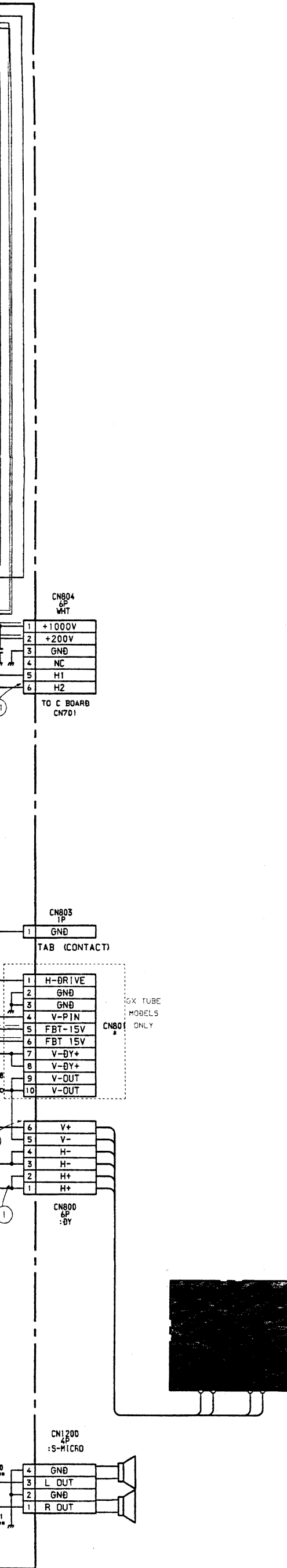
HV OUT
PIN OUT
POWER SUPPLY

- D BOARD -

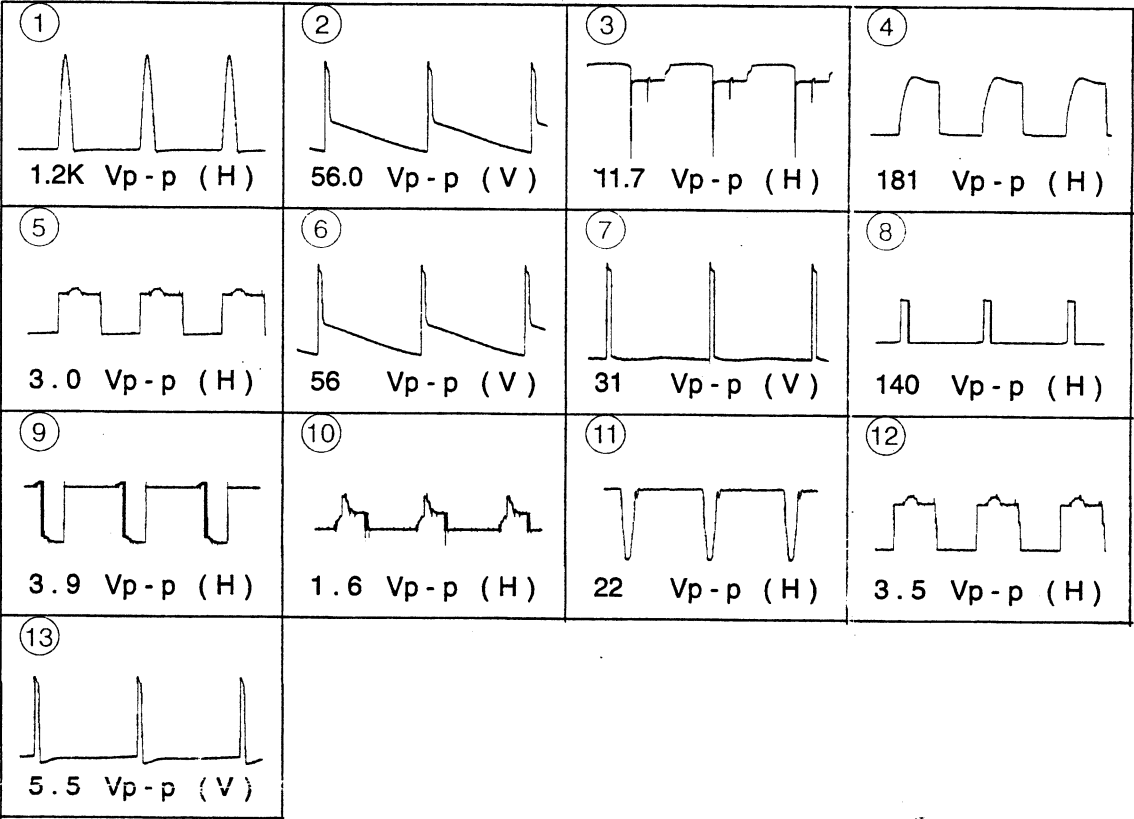


IC		D600	A - 4
IC500	G - 10	D601	C - 3
IC600	C - 5	D603	D - 4
IC601	D - 4	D604	D - 4
IC602	F - 7	D605	C - 3
IC603	H - 2	D606	C - 4
IC604	F - 4	D607	C - 4
IC605	F - 3	D608	F - 6
IC606	E - 2	D609	F - 6
IC800	F - 8	D610	F - 3
IC1200	G - 7	D611	F - 3
IC1201	F - 1	D612	F - 4
TRANSISTOR		D613	F - 5
Q501	H - 11	D614	F - 4
Q502	H - 11	D615	H - 4
Q503	I - 11	D616	G - 3
Q601	C - 4	D617	F - 5
Q602	G - 4	D618	F - 7
Q603	H - 3	D619	D - 2
Q604	G - 3	D620	E - 3
Q605	G - 5	D622	E - 3
Q606	H - 4	D625	G - 5
Q607	E - 4	D626	G - 3
Q800	E - 9	D800	G - 9
Q801	F - 9	D801	G - 9
Q802	A - 8	D802	F - 9
Q803	F - 7	D803	F - 9
Q805	F - 7	D807	E - 9
Q1200	H - 7	D808	E - 11
DIODE		D809	A - 11
D500	G - 9	D810	A - 10
D502	G - 9	D812	B - 7
D503	F - 10	D815	E - 11
D504	I - 10	D817	H - 8
D505	I - 10	D902	I - 2
D506	I - 10	D903	H - 1
D507	G - 9	D904	H - 1
		D905	H - 2
		D906	I - 1



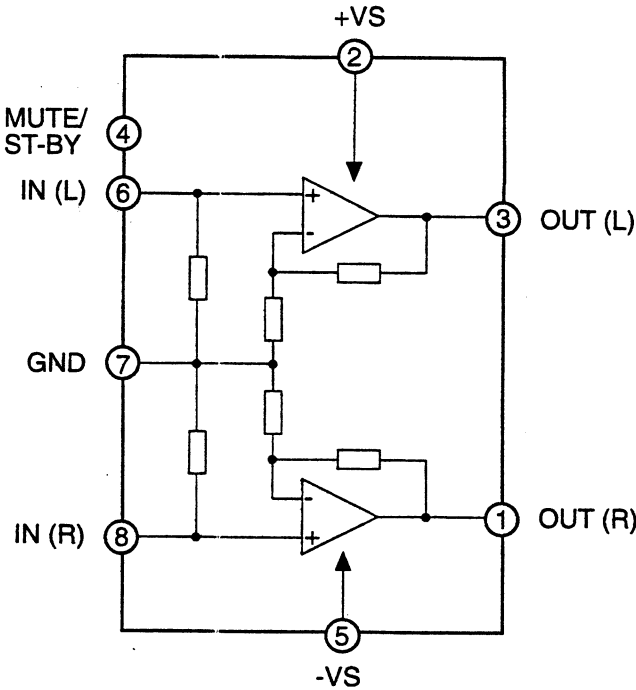
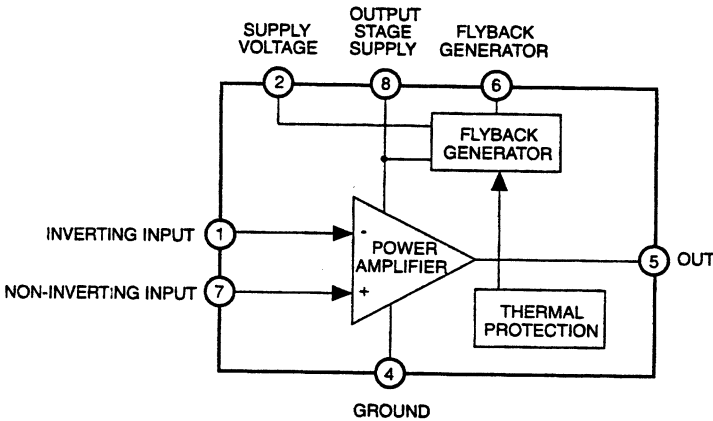


WAVEFORMS D BOARD

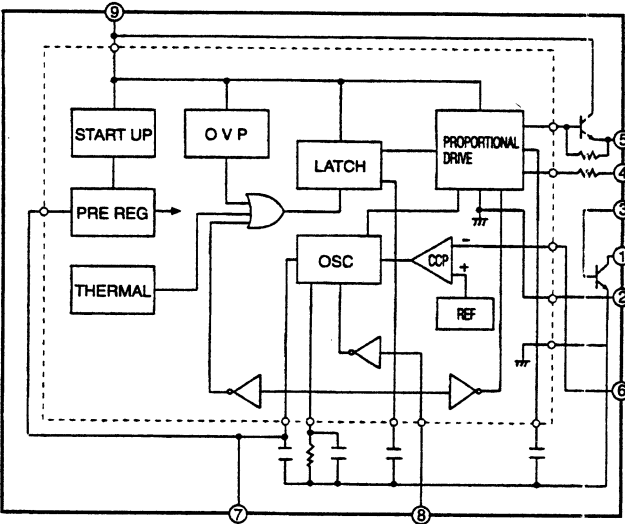


D BOARD IC1200 TDA7264

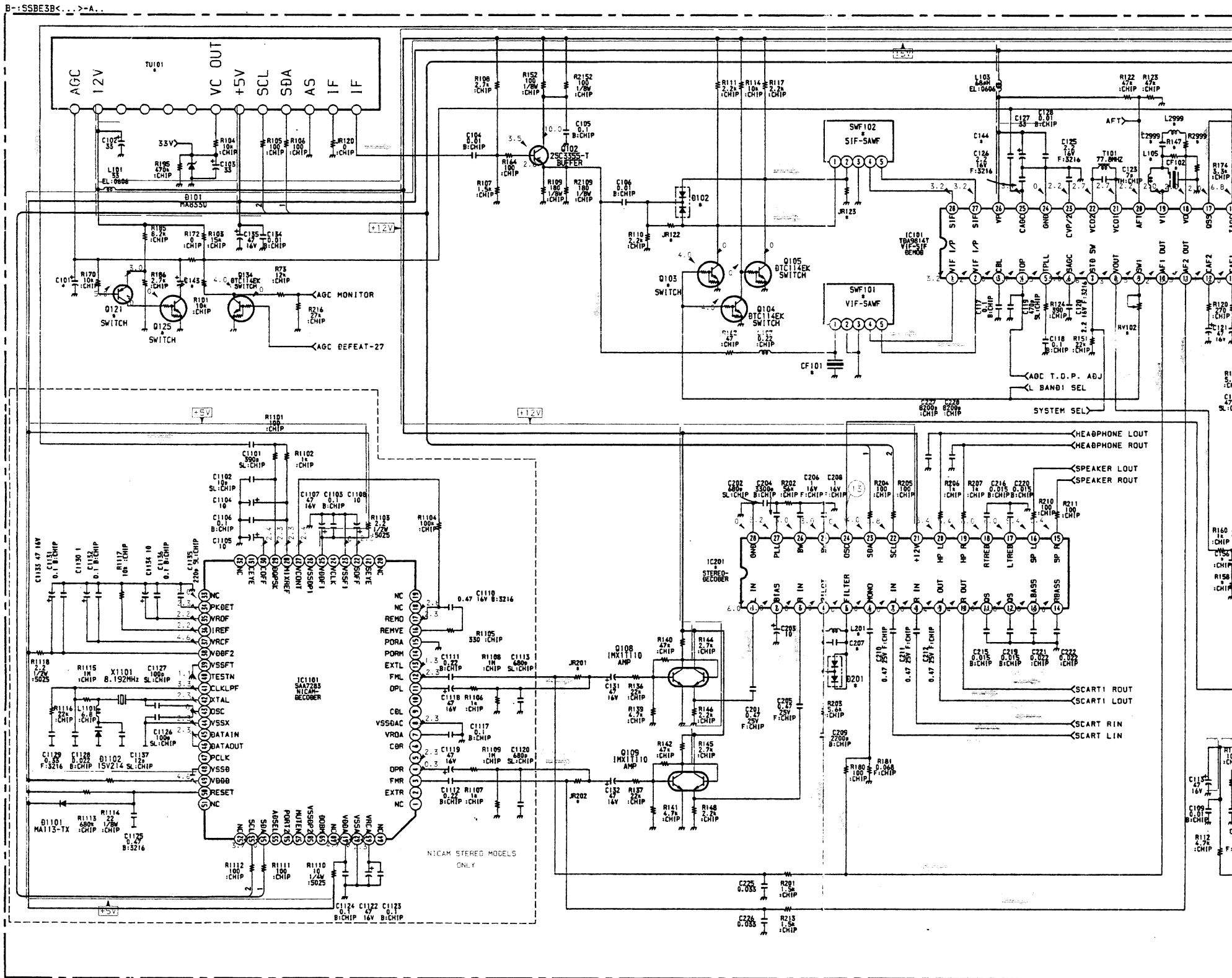
D BOARD IC500 STV9379

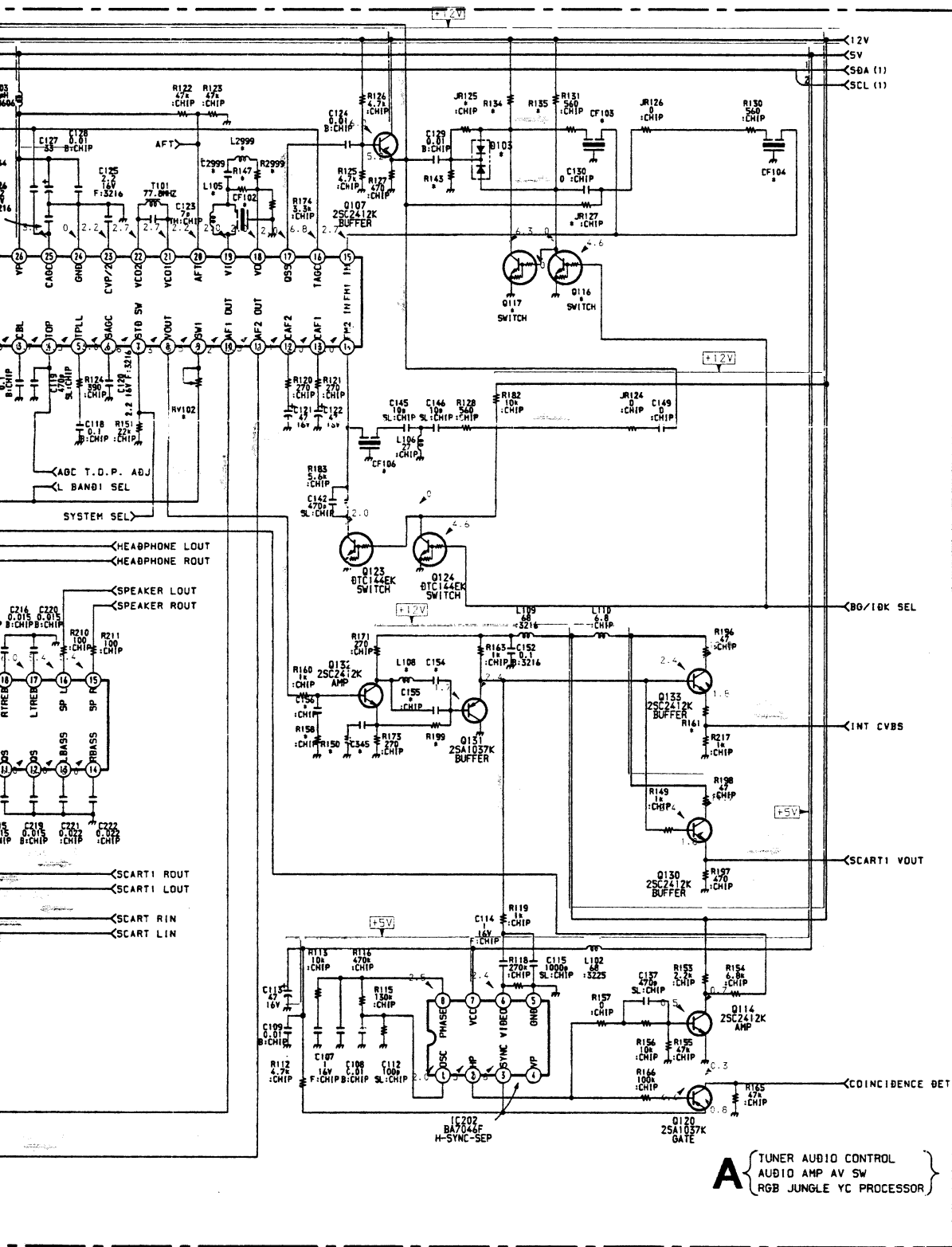


D BOARD IC600 STR-S6708



A
B
C
D
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F
G
H
I
J
K
L
M
N
O

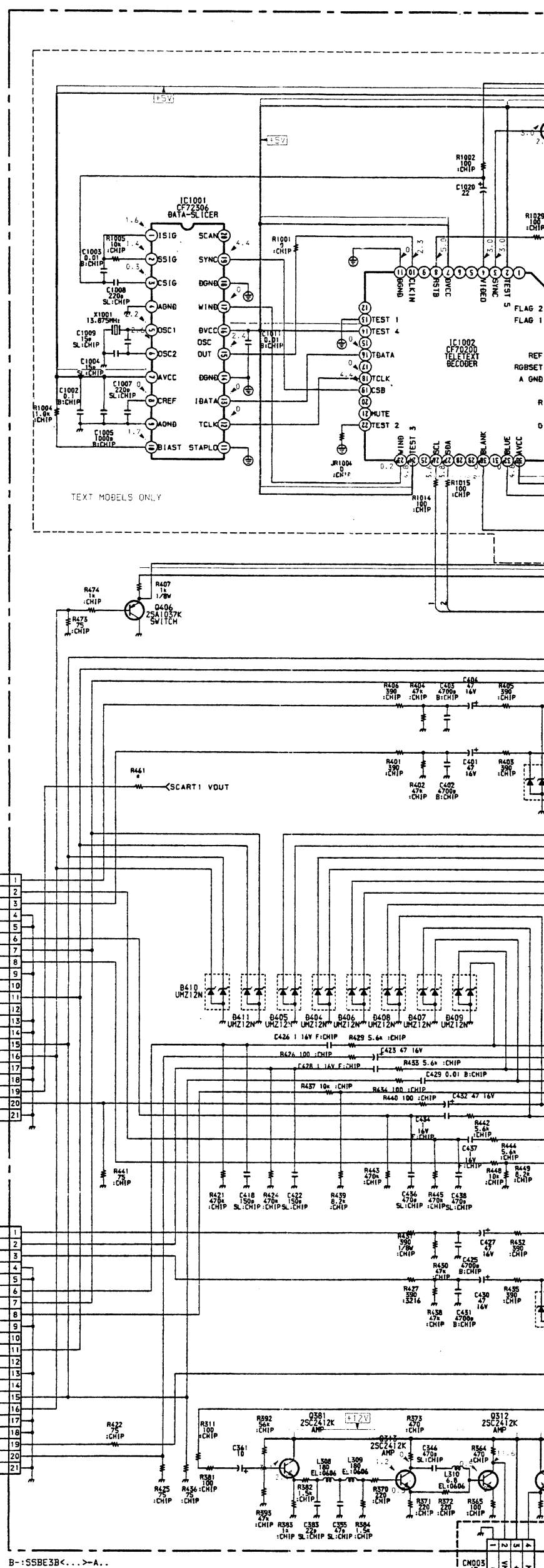


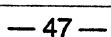


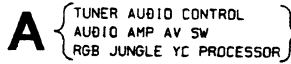
Voltages indicated with the mark ※ on the schematic diagram are shown in the table below.

A BOARD

IC	Pin	PAL	SECAM	NTSC 3.58	NTSC 4.43
IC301	17	4.0	4.0	4.0	0
	35	3.6	2.5	3.5	3.5
	44	1.5	3.1	1.5	1.5
	45	1.5	3.0	1.5	1.5
	48	1.7	4.4	1.6	1.7
	49	1.4	1.4	2.0	1.4
IC303	50	2.0	2.0	1.4	2.0
	63	3.4	2.5	2.2	2.5
	1	1.7	4.4	1.6	1.7
IC303	11	1.5	3.0	1.5	1.5
	12	1.5	3.1	1.5	1.5



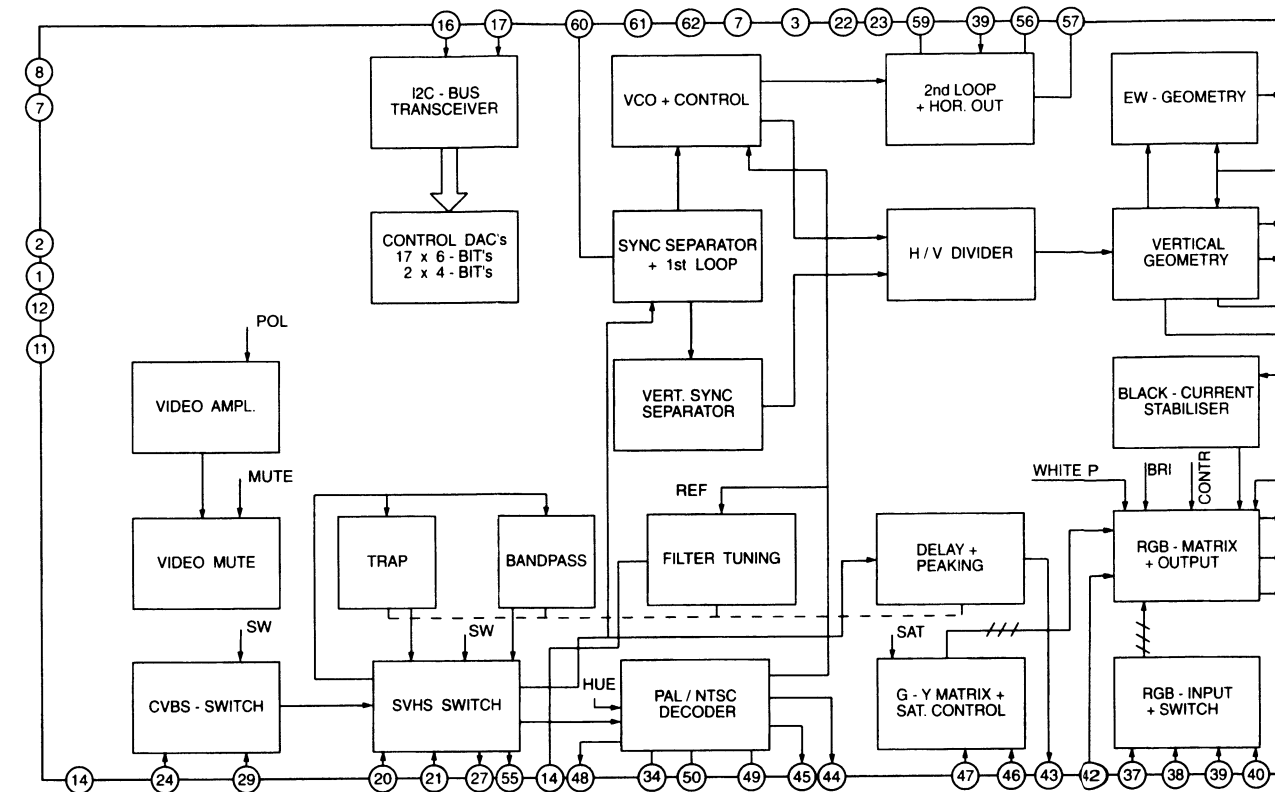




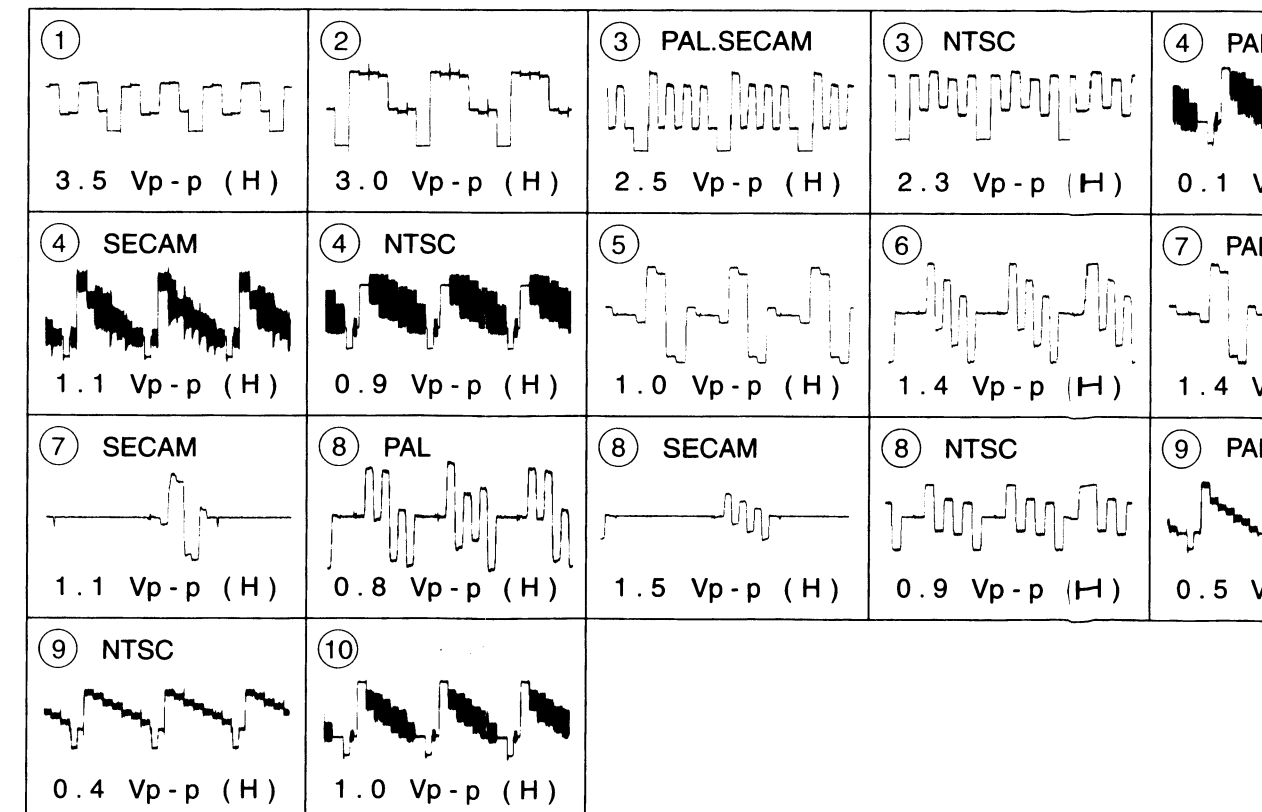
A BOARD * MARK

Ref	X2901D	X2901A	X2900B	X2901B	X2903E	X2902L	X2902U	X2901K
C101	22mF	22mF	4.7mF	4.7mF	22mF	22mF	22mF	22mF
C143	-	-	100mF 16V	100mF 16V	-	-	-	-
C144	-	-	1mF	1mF	-	-	-	-
C154	180pF	180pF	150pF	150pF	180pF	-	-	180pF
C155	47pF	47pF	33pF	33pF	47pF	-	-	47pF
C156	18pF	18pF	-	-	18pF	-	-	18pF
C207	0.0018mF 100V	0.0018mF 100V	0.0018mF 100V	0.0018mF 100V	0.0018mF 100V	-	-	0.0018mF 100V
CF101	EFCV4045A4	EFCV4045A4	EFCV4045A4	EFCV4045A4	EFCV4045A4	-	-	EFCV4045A4
CF102	5.5mHz	5.5mHz	5.5mHz/6.6mHz	5.5mHz/6.6mHz	5.5mHz	6.0mHz	6.0mHz	5.5mHz
CF103	5.5mHz	5.5mHz	5.5mHz	5.5mHz	5.5mHz	-	-	5.5mHz
CF104	6.5mHz	-	6.0mHz	6.0mHz	-	SFE6.0MB	SFE6.0MB	6.5mHz
CF106	5.75mHz	5.75mHz	5.75mHz	5.75mHz	5.75mHz	-	-	5.75mHz
D102	-	-	DAN202K	DAN202K	-	-	-	-
D103	DAN202K	-	DAN202K	DAN202K	-	-	-	DAN202K
D201	DA204K	DA204K	DA204K	DA204K	DA204K	-	-	DA204K
IC201	TDA6612	TDA6612	TDA6612	TDA6612	TDA6612	TDA6622	TDA6622	TDA6612
IC303	TDA8395T	-	TDA8395T	TDA8395T	-	-	-	TDA8395T
JR122	0:CHIP	0:CHIP	-	-	0:CHIP	0:CHIP	0:CHIP	0:CHIP
JR123	0:CHIP	0:CHIP	-	-	0:CHIP	0:CHIP	0:CHIP	0:CHIP
JR125	-	0:CHIP	-	-	0:CHIP	-	-	-
JR127	-	-	-	-	-	0:CHIP	-	-
JR201	0:CHIP	0:CHIP	0:CHIP	0:CHIP	-	-	-	0:CHIP
JR202	0:CHIP	0:CHIP	0:CHIP	0:CHIP	-	-	-	0:CHIP
JR401	-	-	0:CHIP	-	-	-	-	-
JR402	-	-	0:CHIP	-	-	-	-	-
JR403	-	-	0:CHIP	-	-	-	-	-
L105	15μH	15μH	8.2μH	8.2μH	15μH	15μH	15μH	15μH
L108	15μH	15μH	27μH	27μH	15μH	-	-	15μH
L201	4.7mmH	4.7mmH	4.7mmH	4.7mmH	4.7mmH	-	-	4.7mmH
Q103	-	-	DTC114EK	DTC114EK	-	-	-	-
Q116	DTC144EK	-	DTC144EK	DTC144EK	-	-	-	DTC144EK
Q117	DTC144EK	-	DTC144EK	DTC144EK	-	-	-	DTC144EK
Q121	-	-	2SA1037K	2SA1037K	-	-	-	-
Q125	-	-	DTC114EK	DTC114EK	-	-	-	-
R134	2.2K	-	2.2K	2.2K	-	-	-	2.2K
R135	2.2K	-	2.2K	2.2K	-	-	-	2.2K
R143	2.2K	-	2.2K	2.2K	-	-	-	2.2K
R147	270	270	150	150	270	270	270	270
R158	12K	12K	-	-	12K	-	-	12K
R199	330	330	470	470	330	-	-	330
RV102	-	-	22K	22K	-	-	-	-
SWF101	K3953M	K3953M	K3953M	K3953M	K3953M	J3950M	J3950M	K3953M
SWF102	K9350M	K9350M	K9453M	K9453M	K9350M	K9350M	K9350M	K9350M
TU101	UV-916H	UV-916H	UV-916H	UV-916H	UV-916H	U-944C	U-944C	UV-916H

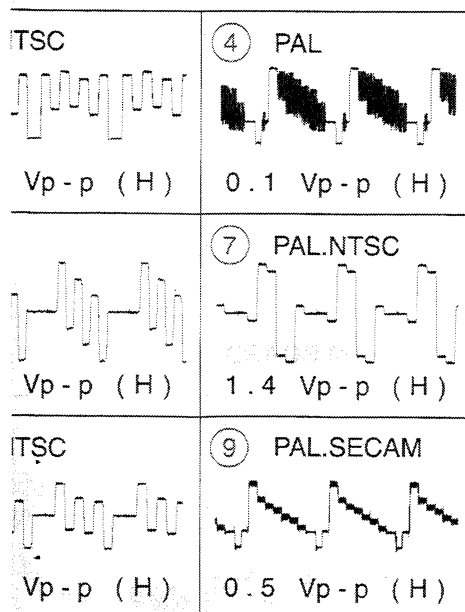
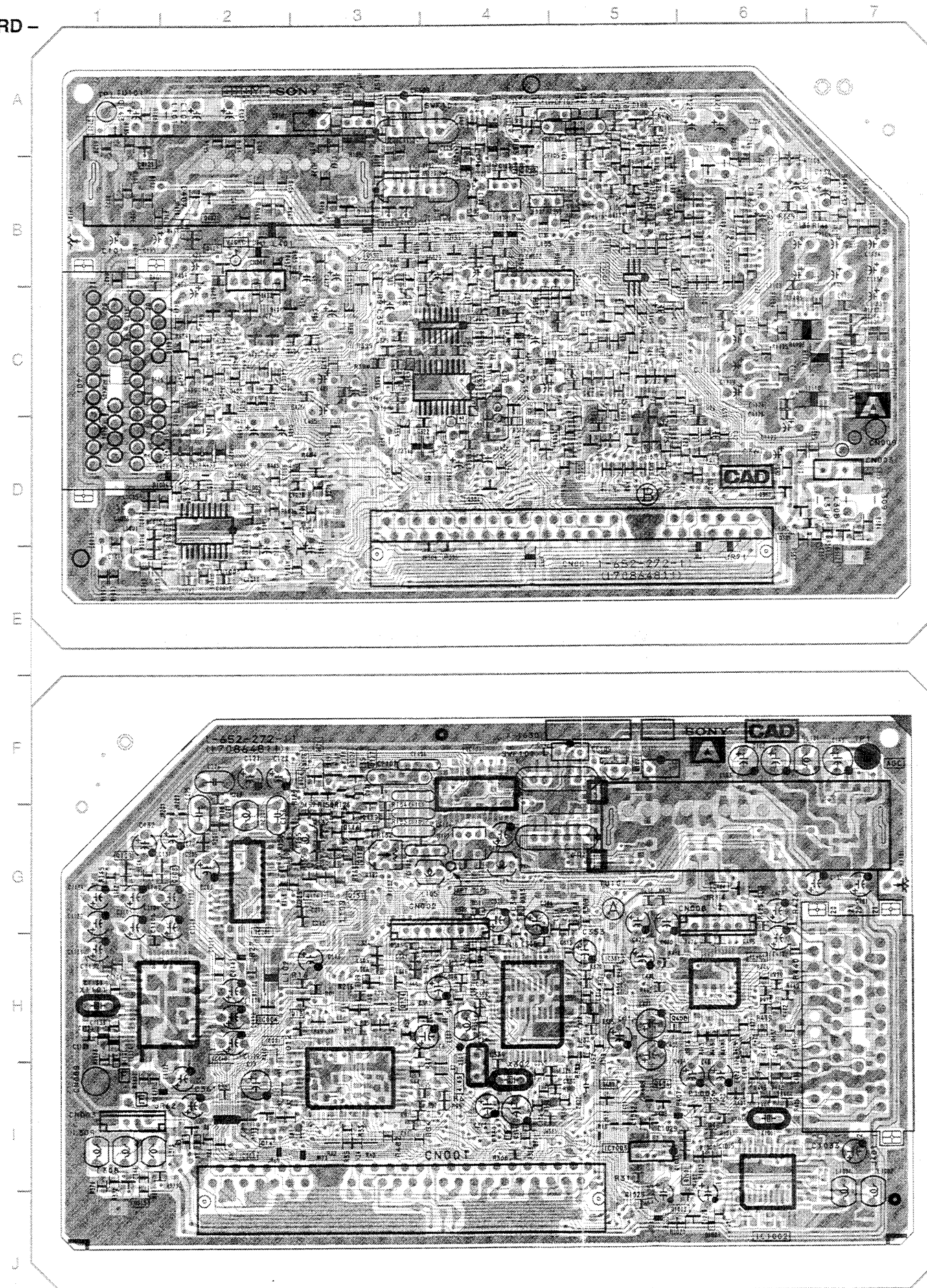
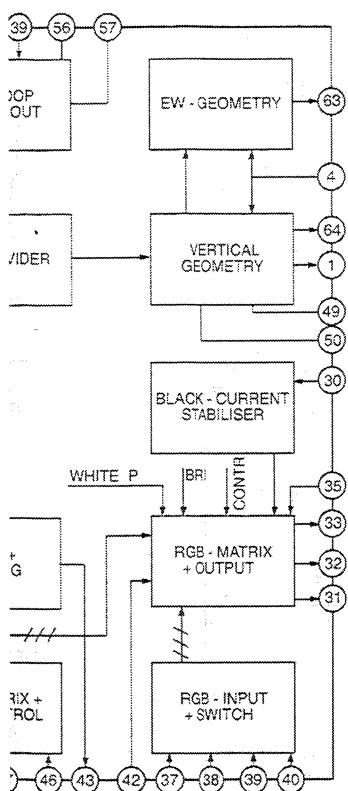
A BOARD IC301 TDA8366T



WAVEFORMS A BOARD



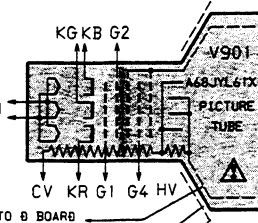
— A BOARD —



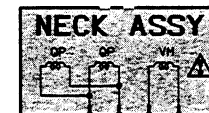
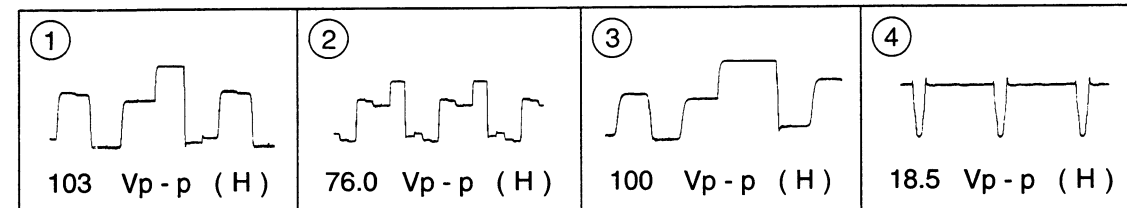
IC		Q313 J-1	
IC001	H-2	Q314	C-4
IC002	I-2	Q380	D-6
IC101	F-4	Q381	D-6
IC201	G-2	Q401	I-5
IC202	B-5	Q402	B-2
IC301	H-5	Q403	B-3
IC302	C-4	Q404	G-6
IC303	C-4	Q1001	I-6
IC401	H-6	Q1003	J-5
IC1001	D-2	DIODE	
IC1002	J-6	D6	I-2
IC1003	I-5	D7	I-2
IC1101	H-2	D9	I-2
TRANSISTOR		D11	D-5
Q4	D-6	D101	B-2
Q8	C-5	D102	B-4
Q11	D-5	D103	A-5
Q12	C-5	D201	B-6
Q14	I-2	D301	G-4
Q102	F-5, A-3	D302	C-4
Q103	B-3	D303	H-3
Q104	B-3	D304	B-5
Q105	B-3	D305	C-4
Q107	B-5	D314	B-3
Q108	G-2	D380	I-4
Q109	G-1	D401	C-2
Q114	G-3	D402	C-2
Q116	G-3	D404	C-2
Q117	F-3	D405	C-2
Q120	C-5	D406	C-2
Q121	A-1	D407	C-2
Q123	B-4	D408	C-2
Q124	F-3	D409	C-2
Q125	B-1	D410	C-2
Q130	B-3	D411	D-2
Q131	G-3	D1002	I-6
Q132	G-3	D1003	J-6
Q133	B-4	D1101	H-1
Q304	D-4	D1102	C-7
Q312	E-7		

Note:

- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

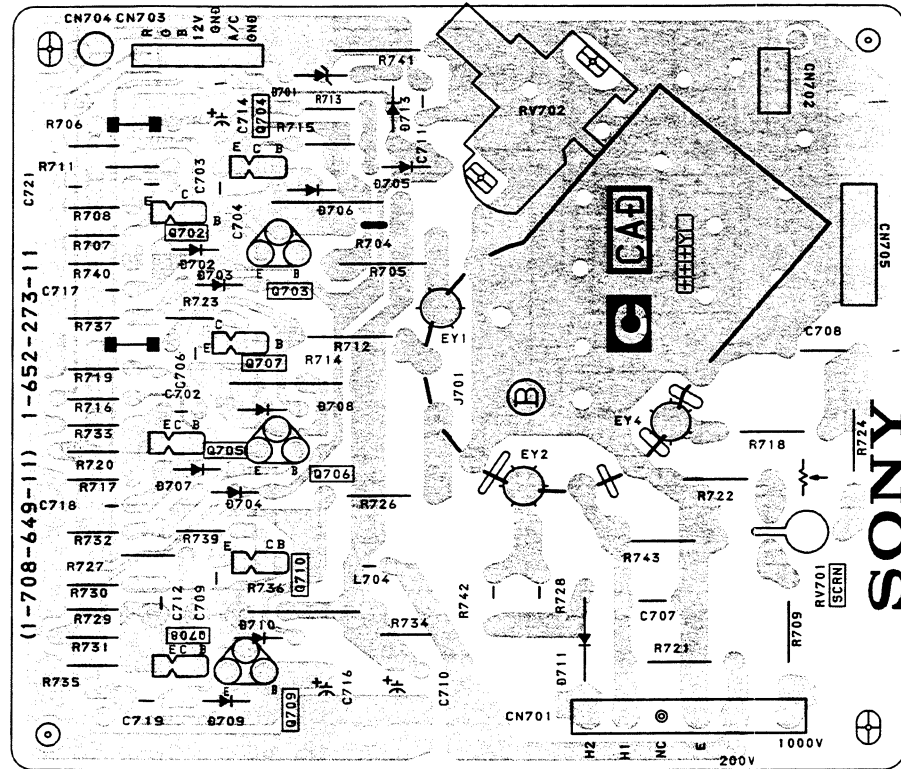


WAVEFORMS C BOARD

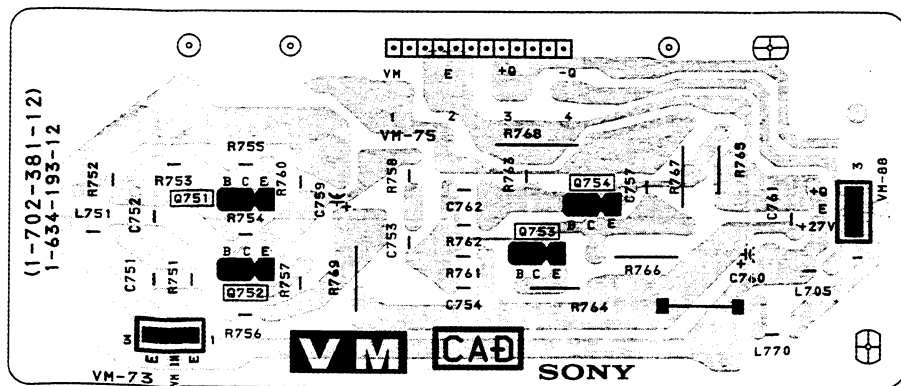


C [RGB OUT] **VM** [VM AMP]

- C BOARD -



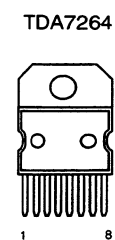
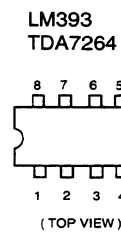
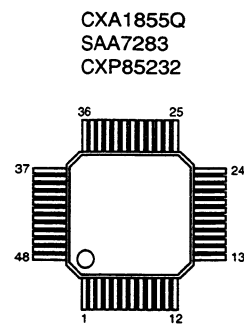
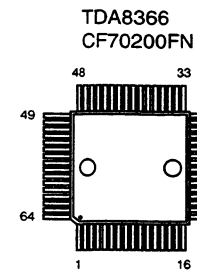
- VM BOARD -



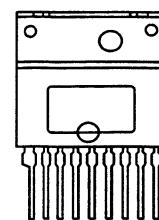
KV-X290

KV-X290

5.4 SEMICONDUCTORS



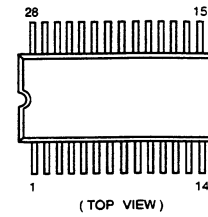
STRS6708



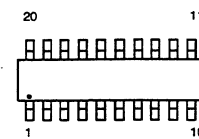
TDA6622



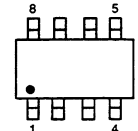
TDA9814



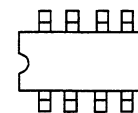
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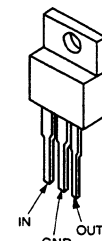
CAT24C16J



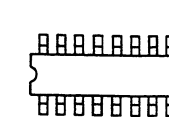
BA7046
TDA2822



MC7812
MC7805CT
LM2940T
SE135N



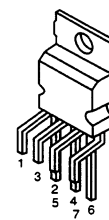
MC14053BF



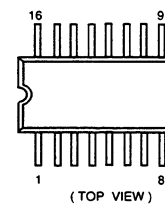
2SA10910
2SC2551-0
JA101
JC501TP



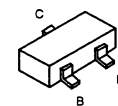
STV9379



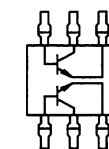
TDA4661/V2



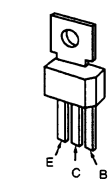
DTC144EK
DTA144EK
2SC2412K
2SA1037-G



1MX1T110



BF871



2SA1837
2SC4793



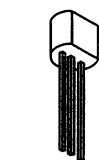
2SD774-34



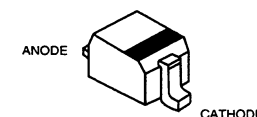
2SC2688-LK



TL750L05CLP



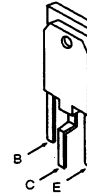
DTZ3.6A



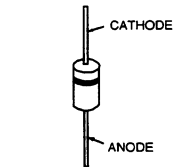
TLP621GR



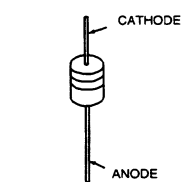
2SC4927-01



RGP10GPKG23
RGP15GPKG23
GP08DPKG23
RU-4AM
EL1Z
EU-1-V1
EU-1ZV1



MTZJ-9.1C
MTZJ-5.1B
MTZJ-9.1
MTZJ-3.6A
MTZJ-6.8C
MTZJ-39C
1SS133



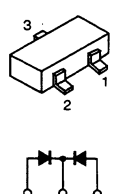
MA704WK



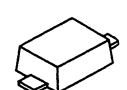
DA204K



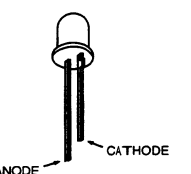
UMZ12N



MA8039
MA113



SLR-54VR3



SECTION 6

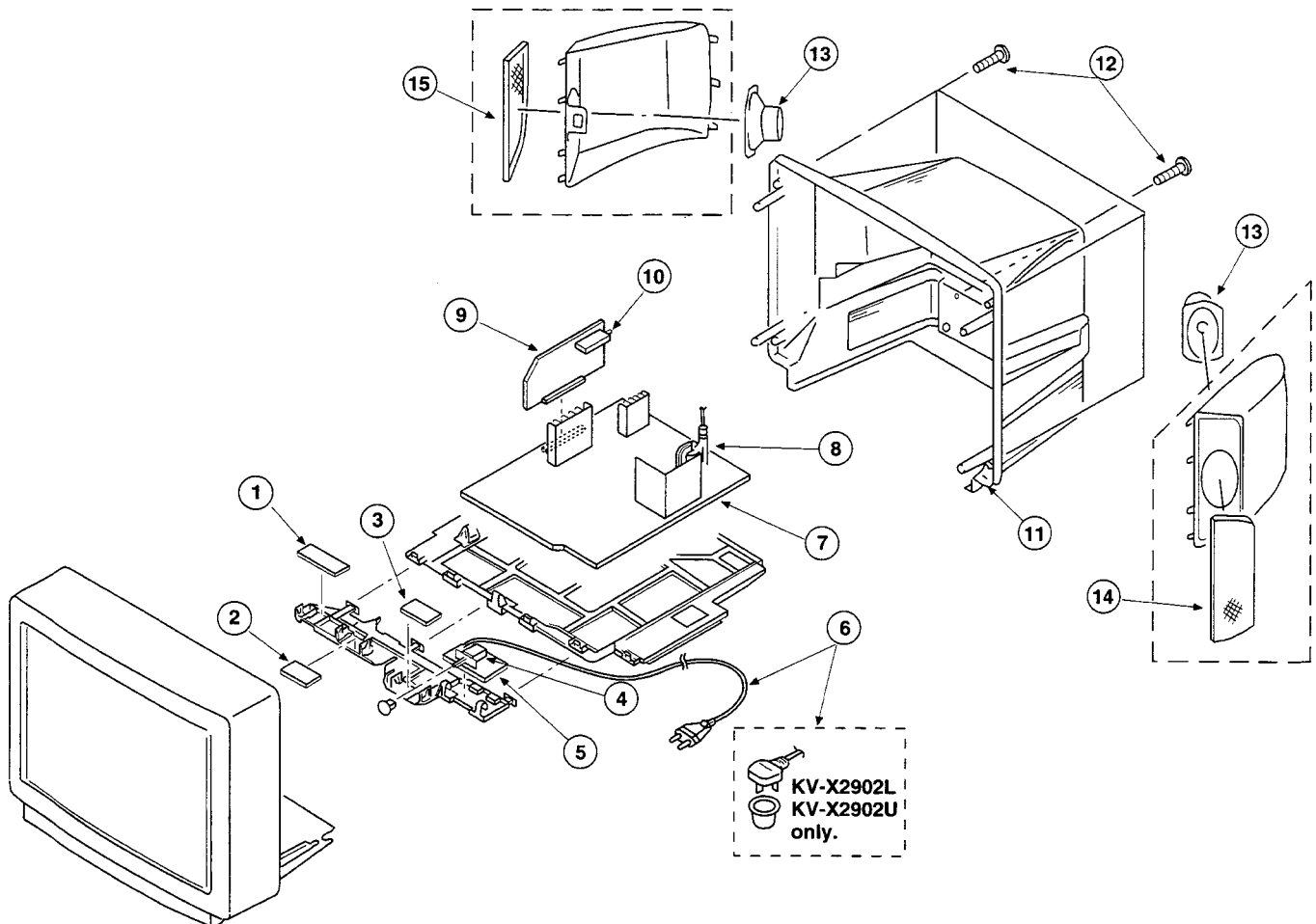
EXPLODED VIEWS

NOTE :

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

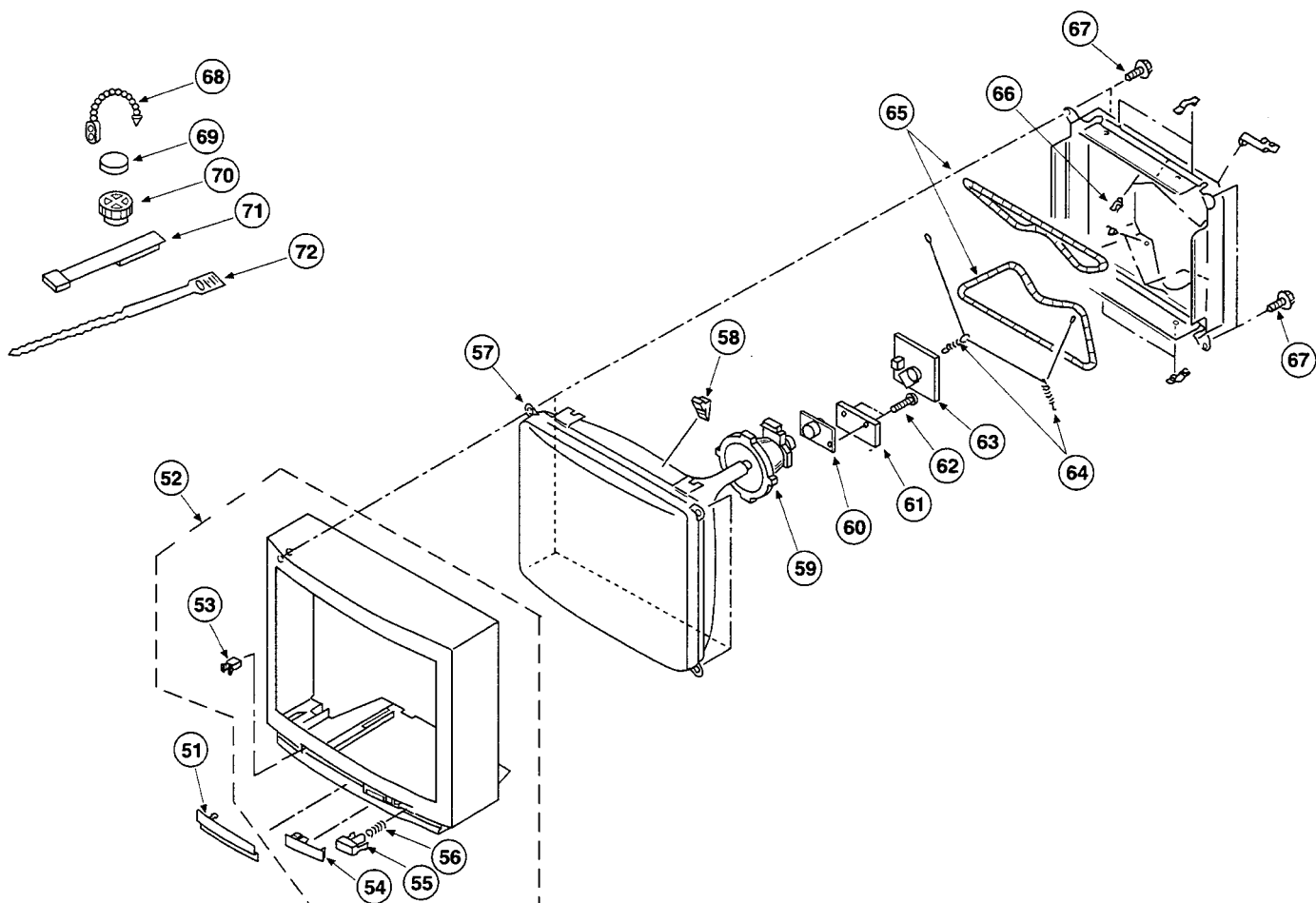
The components identified by shading and marked ! are critical for safety.
Replace only with the part number specified.

6-1. CHASSIS



REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
1	*1-652-275-11	H1 BOARD			*A-1632-198-A	A BOARD, COMPLETE (KV-X2900B)	
2	*1-652-270-11	H3 BOARD			*A-1632-174-A	A BOARD, COMPLETE (KV-X2901D)	
3	*1-652-269-11	H2 BOARD			*A-1632-194-A	A BOARD, COMPLETE (KV-X2903E)	
4	! 1-571-433-11	SWITCH, PUSH (AC POWER)			*A-1632-197-A	A BOARD, COMPLETE (KV-X2901K)	
5	*1-652-271-11	F1 BOARD			*A-1632-195-A	A BOARD, COMPLETE (KV-X2902L)	
6	! 1-751-580-11	CORD, POWER (WITH NOISE FILTER)			*A-1632-199-A	A BOARD, COMPLETE (KV-X2902U)	
		(KV-X2901D/X2901A)		10	1-693-185-11	TUNER (UV916H) (KV-X2900B/X2901B/X2903E/X2901K/X2901D/X2901A/X2902L)	
	! 1-590-460-11	CORD, POWER (WITH CONNECTOR)			1-693-184-11	TUNER (U944C) (KV-X2902U)	
		(KV-X2900B/X2901B/X2903E/X2901K)		11	4-202-713-01	COVER, REAR	
	! 1-590-762-11	CORD, POWER (WITH PLUG)		12	4-039-358-01	SCREW (4x16), (+) BV TAPPING	
		(KV-X2902U/X2902L)		13	1-544-727-11	SPEAKER (7.5x13CM)	
7	*A-1642-115-A	D BOARD, COMPLETE		14	X-4200-087-1	BAFFLE (R) ASSY, BOARD	
8	! 1-453-169-11	FBT ASSY (UX1604A2)		15	X-4200-088-1	BAFFLE (L) ASSY, BOARD	
9	*A-1632-193-A	A BOARD, COMPLETE (KV-X2901A)					
	*A-1632-196-A	A BOARD, COMPLETE (KV-X2901B)					

6-2. PICTURE TUBE



The components identified by shading and marked /A are critical for safety.
Replace only with the part number specified.

REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
51	4-202-701-01	DOOR, CONTROL	53-56	61	*A-1644-028-A	VM BOARD, COMPLETE	
52	X-4200-157-1	BEZNET ASSY		62	4-039-357-01	SCREW (3x8), (+) BV TAPPING	
53	4-386-710-11	CATCHER, PUSH		63	*A-1638-046-A	C BOARD, COMPLETE	
54	4-202-708-01	WINDOW, ORNAMENTAL		64	4-369-318-31	SPRING, TENSION	
55	4-202-709-01	BUTTON, POWER		65	1-402-247-21	COIL, DEGAUSSING	
56	4-329-112-51	SPRING		66	4-034-296-01	HOLDER, DGC	
57	X-3-733-831-05	CRT SD-191 (A68JYL61X)		67	4-036-188-01	SCREW (M), PT	
58	3-704-495-01	SPACER, DY		68	4-308-870-00	CLIP LEAD WIRE	
59	X-1-451-313-51	DEFLECTION YOLK (Y29FXA)		69	1-452-032-00	MAGNET, DISK; 10MMØ	
60	X-1-452-509-01	NECK ASSY, CRT (NR-108)		70	1-452-094-00	MAGNET, ROTATABLE DISK; 15MMØ	
				71	X-4387-214-1	PERMALLOY ASSY, CORRECTION	
				72	3-701-007-00	BAND BINDING	

ELECTRICAL PARTS LIST

SECTION 7

The components identified by shading and marked Δ are critical for safety.
Replace only with the part number specified.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

When indicating parts by reference number, please include the board name.

CAPACITORS

COILS

MF : mF, PF : mmF

MMH : mH, μ H : mH

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

- All resistors are in ohms
- F : nonflammable

F1 **A**

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
	*1-652-271-11	F1 BOARD *****		C18	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
		< CONNECTOR >		C19	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
CN603	Δ *1-580-844-11	PIN, CONNECTOR (POWER)		C21	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V
CN604	Δ *1-695-292-11	PIN, CONNECTOR (POWER)		C22	1-164-005-11	CERAMIC CHIP 0.47MF	25V
		< FUSE >		C23	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
F601	Δ 1-576-232-21	FUSE (H.B.C.) 5A/250V		C24	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
	Δ 1-533-230-11	HOLDER, FUSE; F601		C30	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
		< SWITCH >		C101	1-124-916-11	ELECT 22MF (KV-X2901D/X2901A/X2903E/X2902U X2902L/X2901K)	20% 50V
S601	Δ 1-571-433-11	SWITCH, PUSH (AC POWER)			1-124-927-11	ELECT 4.7MF (KV-X2900B/X2901B)	20% 50V
*****				C102	1-124-917-11	ELECT 33MF	20% 50V
	*A-1632-174-A	A BOARD, COMPLETE (KV-X2901D) *****		C103	1-124-917-11	ELECT 33MF	20% 50V
	*A-1632-193-A	A BOARD, COMPLETE (KV-X2901A) *****		C104	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
	*A-1632-198-A	A BOARD, COMPLETE (KV-X2900B) *****		C105	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
	*A-1632-196-A	A BOARD, COMPLETE (KV-X2901B) *****		C106	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
	*A-1632-194-A	A BOARD, COMPLETE (KV-X2903E) *****		C107	1-164-346-11	CERAMIC CHIP 1MF	16V
	*A-1632-199-A	A BOARD, COMPLETE (KV-X2902U) *****		C108	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
	*A-1632-195-A	A BOARD, COMPLETE (KV-X2902L) *****		C109	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
	*A-1632-197-A	A BOARD, COMPLETE (KV-X2901K) *****		C112	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
		< CAPACITOR >		C113	1-124-477-11	ELECT 47MF	20% 16V
C1	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C114	1-164-346-11	CERAMIC CHIP 1MF	16V
C2	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C115	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C3	1-124-907-11	ELECT 10MF	20% 50V	C117	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C4	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C118	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C7	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C119	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C8	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C120	1-164-337-11	CERAMIC CHIP 2.2MF	16V
C9	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C121	1-124-477-11	ELECT 47MF	20% 16V
C10	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C122	1-124-477-11	ELECT 47MF	20% 16V
C11	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C123	1-163-090-00	CERAMIC CHIP 7PF	0.25PF 50V
C12	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C124	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C13	1-126-101-11	ELECT 100MF	20% 16V	C125	1-164-337-11	CERAMIC CHIP 2.2MF	16V
C16	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V	C126	1-164-337-11	CERAMIC CHIP 2.2MF	16V
C17	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C127	1-124-917-11	ELECT 33MF	20% 50V
				C128	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
				C129	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
				C130	1-216-295-00	METAL GLAZE 0	5% 1/10W
				C131	1-124-477-11	ELECT 47MF	20% 16V
				C132	1-124-477-11	ELECT 47MF	20% 16V
				C134	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
				C135	1-124-477-11	ELECT 47MF	20% 16V
				C137	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
				C142	1-163-133-00	CERAMIC CHIP 470PF	5% 50V

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C143	1-126-101-11	ELECT 100MF (KV-X2900B/X2901B)	20% 16V	C323	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C144	1-164-346-11	CERAMIC CHIP 1MF (KV-X2900B/X2901B)	16V	C324	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C145	1-163-093-00	CERAMIC CHIP 10PF	5% 50V	C325	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C146	1-163-093-00	CERAMIC CHIP 10PF	5% 50V	C326	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V
C149	1-216-295-00	METAL GLAZE 0 5% 1/10W		C327	1-136-165-00	FILM 0.1MF	5% 50V
C150	1-124-477-11	ELECT 47MF	20% 16V	C328	1-164-337-11	CERAMIC CHIP 2.2MF	16V
C151	1-124-477-11	ELECT 47MF	20% 16V	C329	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C152	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C330	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C154	1-163-123-00	CERAMIC CHIP 180PF (KV-X2901D/X2901A/X2903E/X2901K)	5% 50V	C331	1-165-320-11	CERAMIC CHIP 0.47MF	10% 16V
	1-163-121-00	CERAMIC CHIP 150PF (KV-X2900B/X2901B)	5% 50V	C332	1-163-097-00	CERAMIC CHIP 15PF	5% 50V
C155	1-163-109-00	CERAMIC CHIP 47PF (KV-X2901D/X2901A/X2903E/X2901K)	5% 50V	C333	1-163-097-00	CERAMIC CHIP 15PF	5% 50V
	1-163-105-00	CERAMIC CHIP 33PF (KV-X2900B/X2901B)	5% 50V	C334	1-163-016-00	CERAMIC CHIP 0.0039MF	10% 50V
C156	1-163-099-00	CERAMIC CHIP 18PF (KV-X2901D/X2901A/X2903E/X2901K)	5% 50V	C335	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C201	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C336	1-126-101-11	ELECT 100MF	20% 16V
C202	1-163-137-00	CERAMIC CHIP 680PF	5% 50V	C337	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V
C203	1-124-907-11	ELECT 10MF	20% 50V	C338	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C204	1-164-182-11	CERAMIC CHIP 0.0033MF	10% 50V	C339	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C205	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C342	1-124-907-11	ELECT 10MF	20% 50V
C206	1-164-346-11	CERAMIC CHIP 1MF	16V	C346	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C207	1-137-613-11	FILM 0.0018MF (KV-X2901D/X2901A/X2900B/X2901B X2903E/X2901K)	2% 100V	C347	1-163-093-00	CERAMIC CHIP 10PF	5% 50V
C208	1-164-346-11	CERAMIC CHIP 1MF	16V	C348	1-163-093-00	CERAMIC CHIP 10PF	5% 50V
C209	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V	C349	1-163-093-00	CERAMIC CHIP 10PF	5% 50V
C210	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C350	1-165-320-11	CERAMIC CHIP 0.47MF	10% 16V
C211	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C351	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C212	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C352	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
C215	1-163-023-00	CERAMIC CHIP 0.015MF	10% 50V	C353	1-124-477-11	ELECT 47MF	20% 16V
C216	1-163-011-11	CERAMIC CHIP 0.0015MF	10% 50V	C355	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
C219	1-163-023-00	CERAMIC CHIP 0.015MF	10% 50V	C359	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
C220	1-163-011-11	CERAMIC CHIP 0.0015MF	10% 50V	C361	1-124-907-11	ELECT 10MF	20% 50V
C221	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V	C382	1-124-907-11	ELECT 10MF	20% 50V
C222	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V	C383	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C225	1-130-489-00	FILM 0.033MF	5% 50V	C401	1-124-477-11	ELECT 47MF	20% 16V
C226	1-130-489-00	FILM 0.033MF	5% 50V	C402	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C227	1-163-020-00	CERAMIC CHIP 0.0082MF	10% 50V	C403	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C228	1-163-020-00	CERAMIC CHIP 0.0082MF	10% 50V	C404	1-124-477-11	ELECT 47MF	20% 16V
C305	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C406	1-124-907-11	ELECT 10MF	20% 50V
C306	1-126-101-11	ELECT 100MF	20% 16V	C409	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C307	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C410	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C308	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C411	1-124-477-11	ELECT 47MF	20% 16V
C309	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C418	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
C310	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C420	1-216-295-00	METAL GLAZE 0 5% 1/10W	
C311	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C421	1-124-917-11	ELECT 33MF	20% 50V
C312	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C422	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
C313	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C423	1-124-477-11	ELECT 47MF	20% 16V
C314	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C425	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C315	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C426	1-164-346-11	CERAMIC CHIP 1MF	16V
C316	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C427	1-124-477-11	ELECT 47MF	20% 16V
C318	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C428	1-164-346-11	CERAMIC CHIP 1MF	16V
C320	1-124-477-11	ELECT 47MF	20% 16V	C429	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C321	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C430	1-124-477-11	ELECT 47MF	20% 16V
C322	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C431	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
				C432	1-124-477-11	ELECT 47MF	20% 16V
				C433	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
				C434	1-164-346-11	CERAMIC CHIP 1MF	16V
				C435	1-126-101-11	ELECT 100MF	20% 16V
				C436	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
				C437	1-164-346-11	CERAMIC CHIP 1MF	16V
				C438	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
				C445	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
< C1002 - C1033 FITTED ON > <KV-X2901D/X2901A/X2901B/X2903E> <X2902U/X2902L/X2901K>				C1136	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C1002	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C1137	1-163-095-00	CERAMIC CHIP 12PF	5% 50V
C1003	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	< FILTER >			
C1004	1-163-097-00	CERAMIC CHIP 15PF	5% 50V	CF101	0-550-400-00	EFCV 4045 A4 (KV-X2901D/X2901A/X2900B/X2901B X2903E/X2901K)	
C1005	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	CF102	1-404-134-00	TRAP, CERAMIC (5.5MHZ) (KV-X2901D/X2901A/X2903E/X2901K)	
C1007	1-163-125-00	CERAMIC CHIP 220PF	5% 50V		1-409-430-11	TRAP, CERAMIC (KV-X2900B/X2901B)	
C1008	1-163-125-00	CERAMIC CHIP 220PF	5% 50V		1-409-333-00	TRAP, CERAMIC (6.0MHZ) (KV-X2902U/X2902L)	
C1009	1-163-097-00	CERAMIC CHIP 15PF	5% 50V	CF103	0-550-808-10	SFE 5.5 MC2 (KV-X2901D/X2901A/X2900B/X2901B X2903E/X2901K)	
C1011	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	CF104	1-567-101-11	FILTER, CERAMIC (KV-X2901D/X2901K)	
C1013	1-164-346-11	CERAMIC CHIP 1MF	16V		1-567-100-00	FILTER, CERAMIC (KV-X2900B/X2901B)	
C1015	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	CF106	0-550-809-10	SFE 5.75 MC2 (KV-X2901D/X2901A/X2900B/X2901B X2903E/X2901K)	
C1016	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	SWF101	1-579-273-11	FILTER, SURFACE WAVE	
C1018	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	SWF102	1-760-329-11	FILTER, SURFACE WAVE (KV-X2901D/X2901A/X2903E/X2902U X2902L/X2901K)	
C1019	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V		1-760-244-11	FILTER, SURFACE WAVE (KV-X2900B/X2901B)	
C1020	1-124-916-11	ELECT 22MF	20% 50V	< CONNECTOR >			
C1021	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	CN001	1-695-302-11	CONNECTOR, BOARD TO BOARD 50P	
C1024	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	CN002	*1-568-882-51	PIN, CONNECTOR 7P	
C1025	1-124-477-11	ELECT 47MF	20% 16V	CN003	*1-568-879-11	PIN, CONNECTOR 4P	
C1026	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	< DIODE >			
C1027	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	D2	8-719-421-24	DIODE MA8039-H	
C1028	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	D6	8-719-047-41	DIODE UMZ12N-T146	
C1029	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	D7	8-719-041-97	DIODE MA113-TX	
C1030	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	D9	8-719-041-97	DIODE MA113-TX	
C1031	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	D11	8-719-041-97	DIODE MA113-TX	
C1032	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	D101	8-719-977-81	DIODE DTZ338	
C1033	1-124-907-11	ELECT 10MF	20% 50V	D102	8-719-914-43	DIODE DAN202K-T-147 (KV-X2900B/X2901B)	
< C1101 - C1137 FITTED ON > <KV-X2903E/X2902U/X2902L>				D103	8-719-914-43	DIODE DAN202K-T-147 (KV-X2901D/X2900B/X2901B/X2901K)	
C1101	1-163-131-00	CERAMIC CHIP 390PF	5% 50V	D201	8-719-800-76	DIODE DA204K-T-147 (KV-X2901D/X2901A/X2900B/X2901B X2903E/X2901K)	
C1102	1-163-093-00	CERAMIC CHIP 10PF	5% 50V	D301	8-719-041-97	DIODE MA113-TX	
C1103	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	D302	8-719-041-97	DIODE MA113-TX	
C1104	1-124-907-11	ELECT 10MF	20% 50V	D303	8-719-041-97	DIODE MA113-TX	
C1105	1-124-907-11	ELECT 10MF	20% 50V	D304	8-719-041-97	DIODE MA113-TX	
C1106	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	D305	8-719-041-97	DIODE MA113-TX	
C1107	1-124-477-11	ELECT 47MF	20% 16V	D314	8-719-047-16	DIODE BAS216	
C1108	1-124-907-11	ELECT 10MF	20% 50V	D380	8-719-041-97	DIODE MA113-TX	
C1110	1-165-320-11	CERAMIC CHIP 0.47MF	10% 16V	D401	8-719-047-41	DIODE UMZ12N-T146	
C1111	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V	D402	8-719-047-41	DIODE UMZ12N-T146	
C1112	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V	D404	8-719-047-41	DIODE UMZ12N-T146	
C1113	1-163-137-00	CERAMIC CHIP 680PF	5% 50V	D405	8-719-047-41	DIODE UMZ12N-T146	
C1117	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C1118	1-124-477-11	ELECT 47MF	20% 16V				
C1119	1-124-477-11	ELECT 47MF	20% 16V				
C1120	1-163-137-00	CERAMIC CHIP 680PF	5% 50V				
C1122	1-124-477-11	ELECT 47MF	20% 16V				
C1123	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C1124	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C1125	1-165-320-11	CERAMIC CHIP 0.47MF	10% 16V				
C1126	1-163-117-00	CERAMIC CHIP 100PF	5% 50V				
C1127	1-163-117-00	CERAMIC CHIP 100PF	5% 50V				
C1128	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V				
C1129	1-162-568-11	CERAMIC CHIP 0.33MF	25V				
C1130	1-124-903-11	ELECT 1MF	20% 50V				
C1131	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C1132	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C1133	1-124-477-11	ELECT 47MF	20% 16V				
C1134	1-124-907-11	ELECT 10MF	20% 50V				
C1135	1-163-125-00	CERAMIC CHIP 220PF	5% 50V				

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
D406	8-719-047-41	DIODE UMZ12N-T146		L108	1-412-008-11	INDUCTOR CHIP 15UH (KV-X2901D/X2901A/X2903E/X2901K)	
D407	8-719-047-41	DIODE UMZ12N-T146		1-412-011-31	INDUCTOR CHIP 27UH (KV-X2900B/X2901B)		
D408	8-719-047-41	DIODE UMZ12N-T146		L109	1-410-214-31	INDUCTOR CHIP 68UH	
D409	8-719-047-41	DIODE UMZ12N-T146		L110	1-412-004-31	INDUCTOR CHIP 6.8UH	
D410	8-719-047-41	DIODE UMZ12N-T146		L201	1-410-067-21	INDUCTOR 4.7MMH (KV-X2901D/X2901A/X2900B/X2901B X2903E/X2901K)	
D411	8-719-047-41	DIODE UMZ12N-T146		L304	1-412-006-31	INDUCTOR CHIP 10UH	
D1002	8-719-023-25	DIODE MA704WK (KV-X2901D/X2901A/X2901B X2903E/X2902U/X2902L/X2901K)		L305	1-412-006-31	INDUCTOR CHIP 10UH	
D1003	8-719-976-84	DIODE DTZ3.6A (KV-X2901D/X2901A/X2901B X2903E/X2902U/X2902L/X2901K)		L306	1-412-006-31	INDUCTOR CHIP 10UH	
D1101	8-719-041-97	DIODE MA113-TX (KV-X2903E/X2902U/X2902L)		L307	1-408-609-41	INDUCTOR 33UH	
D1102	8-719-820-71	DIODE 1SV214 (KV-X2903E/X2902U/X2902L)		L308	1-408-424-00	INDUCTOR 180UH	
		< IC >		L309	1-408-424-00	INDUCTOR 180UH	
IC001	8-752-851-53	IC CXP85232-SV4839		L310	1-408-407-00	INDUCTOR 6.8UH	
IC002	8-759-252-11	IC CAT24C16J-TR13		L401	1-410-214-31	INDUCTOR CHIP 68UH	
IC101	8-759-193-14	IC TDA9814T		L1001	1-408-419-00	INDUCTOR 68UH (KV-X2901D/X2901A/X2901B X2903E/X2902U/X2902L/X2901K)	
IC201	8-759-252-14	IC TDA6612-X-GEG (KV-X2901D/X2901A/X2900B/X2901B X2903E/X2901K)		L1002	1-408-419-00	INDUCTOR 68UH (KV-X2901D/X2901A/X2901B X2903E/X2902U/X2902L/X2901K)	
	8-759-252-12	IC TDA6622-X-GEG (KV-X2902U/X2902L)		L1101	1-412-004-31	INDUCTOR CHIP 6.8UH (KV-X2903E/X2902U/X2902L)	
IC202	8-759-514-57	IC BA7046F		T101	1-403-686-21	COIL	
IC301	8-759-251-57	IC TDA8366T		< TRANSISITOR >			
IC302	8-759-086-97	IC TDA4661T/V2		Q4	8-729-901-01	TRANSISTOR DTC144EK	
IC303	8-759-251-56	IC TDA8395T (KV-X2901D/X2900B/X2901B/X2901K)		Q5	8-729-216-22	TRANSISTOR 2SA1162-G	
IC401	8-752-069-53	IC CXA1855Q-T6		Q8	8-729-920-74	TRANSISTOR 2SC2412K-QR	
IC1001	8-759-252-08	IC CF72306DW-R (KV-X2901D/X2901A/X2901B X2903E/X2902U/X2902L/X2901K)		Q11	8-729-920-74	TRANSISTOR 2SC2412K-QR	
IC1002	8-759-252-10	IC CF70200FN-R (KV-X2901D/X2901A/X2901B X2903E/X2902U/X2902L/X2901K)		Q12	8-729-920-74	TRANSISTOR 2SC2412K-QR	
IC1003	8-759-300-71	IC HD14053BFP (KV-X2901D/X2901A/X2901B X2903E/X2902U/X2902L/X2901K)		Q14	8-729-920-74	TRANSISTOR 2SC2412K-QR	
IC1101	8-759-251-58	IC SAA7283T (KV-X2903E/X2902U/X2902L)		Q102	8-729-104-80	TRANSISTOR 2SC3355	
		< SOCKET >		Q103	8-729-900-53	TRANSISTOR DTC114EK (KV-X2900B/X2901B)	
J401	1-766-296-11	CONNECTOR, DUAL SCART		Q104	8-729-900-53	TRANSISTOR DTC114EK	
		< COIL >		Q105	8-729-900-53	TRANSISTOR DTC114EK	
L1	1-412-010-41	INDUCTOR CHIP 22UH		Q107	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L101	1-408-609-41	INDUCTOR 33UH		Q108	8-729-907-26	TRANSISTOR IMX1	
L102	1-410-214-31	INDUCTOR CHIP 68UH		Q109	8-729-907-26	TRANSISTOR IMX1	
L103	1-408-419-00	INDUCTOR 68UH		Q114	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L105	1-412-008-11	INDUCTOR CHIP 15UH (KV-X2901D/X2901A/X2903E/X2902U X2902L/X2901K)		Q116	8-729-901-01	TRANSISTOR DTC144EK (KV-X2901D/X2900B/X2901B/X2901K)	
	1-412-005-11	INDUCTOR CHIP 8.2UH (KV-X2900B/X2901B)		Q117	8-729-901-01	TRANSISTOR DTC144EK (KV-X2901D/X2900B/X2901B/X2901K)	
L106	1-412-011-31	INDUCTOR CHIP 27UH		Q120	8-729-216-22	TRANSISTOR 2SA1162-G	
L107	1-410-985-11	INDUCTOR CHIP 0.22UH		Q121	8-729-216-22	TRANSISTOR 2SA1162-G (KV-X2900B/X2901B)	
				Q123	8-729-901-01	TRANSISTOR DTC144EK	
				Q124	8-729-901-01	TRANSISTOR DTC144EK	
				Q125	8-729-900-53	TRANSISTOR DTC114EK (KV-X2900B/X2901B)	
				Q130	8-729-920-74	TRANSISTOR 2SC2412K-QR	
				Q131	8-729-216-22	TRANSISTOR 2SA1162-G	
				Q132	8-729-920-74	TRANSISTOR 2SC2412K-QR	
				Q133	8-729-920-74	TRANSISTOR 2SC2412K-QR	
				Q304	8-729-920-74	TRANSISTOR 2SC2412K-QR	
				Q312	8-729-920-74	TRANSISTOR 2SC2412K-QR	
				Q313	8-729-920-74	TRANSISTOR 2SC2412K-QR	



REF.NO.	PART NO.	DESCRIPTION	REMARK
Q314	8-729-900-53	TRANSISTOR DTC114EK	
Q380	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q381	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q401	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q402	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q403	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q404	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1001	8-729-920-74	TRANSISTOR 2SC2412K-QR (KV-X2901D/X2901A/X2901B X2903E/X2902U/X2902L/X2901K)	
Q1003	8-729-216-22	TRANSISTOR 2SA1162-G (KV-X2901D/X2901A/X2901B X2903E/X2902U/X2902L/X2901K)	
< RESISTOR >			
JR3	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR8	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR9	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR10	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR12	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR13	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR14	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR15	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR16	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR17	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR18	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR19	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR20	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR22	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR25	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR28	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR53	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR54	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR55	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR56	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR57	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR58	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR59	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR60	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR61	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR62	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR63	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR64	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR65	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR66	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR67	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR68	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR69	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR70	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR71	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR72	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR73	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR74	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR113	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR120	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR122	1-216-295-00	METAL GLAZE 0 5% 1/10W (KV-X2901D/X2901A/X2903E/X2902U X2902L/X2901K)	
JR123	1-216-295-00	METAL GLAZE 0 5% 1/10W (KV-X2901D/X2901A/X2903E/X2902U X2902L/X2901K)	

REF.NO.	PART NO.	DESCRIPTION	REMARK
JR124	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR125	1-216-295-00	METAL GLAZE 0 5% 1/10W (KV-X2901A/X2903E)	
JR126	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR127	1-216-295-00	METAL GLAZE 0 5% 1/10W (KV-X2902L)	
JR201	1-216-295-00	METAL GLAZE 0 5% 1/10W (KV-X2901D/X2901A/X2900B/X2901B X2901K)	
JR202	1-216-295-00	METAL GLAZE 0 5% 1/10W (KV-X2901D/X2901A/X2900B/X2901B X2901K)	
JR401	1-216-295-00	METAL GLAZE 0 5% 1/10W (KV-X2900B)	
JR402	1-216-295-00	METAL GLAZE 0 5% 1/10W (KV-X2900B)	
JR403	1-216-295-00	METAL GLAZE 0 5% 1/10W (KV-X2900B)	
JR408	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR1004	1-216-295-00	METAL GLAZE 0 5% 1/10W (KV-X2901D/X2901A/X2901B X2903E/X2902U/X2902L/X2901K)	
R21	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R24	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R25	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R26	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R27	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R29	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R31	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R33	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R35	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R40	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R41	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R43	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R44	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R46	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R49	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R50	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R59	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R60	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R61	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R70	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R71	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R72	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R73	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R75	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R76	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R77	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R78	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R79	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R82	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R83	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R84	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R85	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R86	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R87	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R88	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R89	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R90	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R91	1-216-049-00	METAL GLAZE 1K 5% 1/10W	

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REF.NO.	PART NO.	DESCRIPTION	REMARK
R92	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R93	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R94	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R95	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R96	1-216-071-00	METAL GLAZE 8.2K 5%	1/10W
R97	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R99	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R101	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R102	1-216-083-00	METAL GLAZE 27K 5%	1/10W
R103	1-216-077-00	METAL GLAZE 15K 5%	1/10W
R104	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R105	1-216-025-00	METAL GLAZE 100 5%	1/10W
R106	1-216-025-00	METAL GLAZE 100 5%	1/10W
R107	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W
R108	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
R109	1-216-176-00	METAL GLAZE 120 5%	1/8W
R110	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R111	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R112	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R113	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R114	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R115	1-218-755-11	METAL CHIP 130K 0.50%	1/10W
R116	1-216-113-00	METAL GLAZE 470K 5%	1/10W
R117	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R118	1-216-107-00	METAL GLAZE 270K 5%	1/10W
R119	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R120	1-216-037-00	METAL GLAZE 330 5%	1/10W
R121	1-216-037-00	METAL GLAZE 330 5%	1/10W
R122	1-216-089-91	METAL GLAZE 47K 5%	1/10W
R123	1-216-089-91	METAL GLAZE 47K 5%	1/10W
R124	1-216-039-00	METAL GLAZE 390 5%	1/10W
R125	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R126	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R127	1-216-041-00	METAL GLAZE 470 5%	1/10W
R128	1-216-043-00	METAL GLAZE 560 5%	1/10W
R130	1-216-043-00	METAL GLAZE 560 5%	1/10W
R131	1-216-043-00	METAL GLAZE 560 5%	1/10W
R134	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W (KV-X2901D/X2900B/X2901B/X2901K)
R135	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W (KV-X2901D/X2900B/X2901B/X2901K)
R136	1-216-085-00	METAL GLAZE 33K 5%	1/10W
R137	1-216-085-00	METAL GLAZE 33K 5%	1/10W
R139	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W
R140	1-216-093-00	METAL GLAZE 68K 5%	1/10W
R141	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W
R142	1-216-093-00	METAL GLAZE 68K 5%	1/10W
R143	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W (KV-X2901D/X2900B/X2901B/X2901K)
R144	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W
R145	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W
R146	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R147	1-216-035-00	METAL GLAZE 270 5%	1/10W (KV-X2901D/X2901A/X2903E/X2902U X2902L/X2901K)
	1-216-029-00	METAL GLAZE 150 5%	1/10W (KV-X2900B/X2901B)
R148	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R149	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R151	1-216-081-00	METAL GLAZE 22K 5%	1/10W

REF.NO.	PART NO.	DESCRIPTION	REMARK
R152	1-216-023-00	METAL GLAZE 82 5%	1/10W
R153	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R154	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W
R155	1-216-089-91	METAL GLAZE 47K 5%	1/10W
R156	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R157	1-216-295-00	METAL GLAZE 0 5%	1/10W
R158	1-216-075-00	METAL GLAZE 12K 5%	1/10W (KV-X2901D/X2901A/X2903E/X2901K)
R160	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R161	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R162	1-216-017-00	METAL GLAZE 47 5%	1/10W
R163	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R164	1-216-025-00	METAL GLAZE 100 5%	1/10W
R165	1-216-089-91	METAL GLAZE 47K 5%	1/10W
R166	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R170	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R171	1-216-035-00	METAL GLAZE 270 5%	1/10W
R172	1-216-295-00	METAL GLAZE 0 5%	1/10W
R173	1-216-035-00	METAL GLAZE 270 5%	1/10W
R174	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R180	1-216-295-00	METAL GLAZE 0 5%	1/10W
R182	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R183	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
R185	1-216-071-00	METAL GLAZE 8.2K 5%	1/10W
R186	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W
R192	1-216-033-00	METAL GLAZE 220 5%	1/10W
R195	1-216-113-00	METAL GLAZE 470K 5%	1/10W
R196	1-216-013-00	METAL GLAZE 33 5%	1/10W
R197	1-216-037-00	METAL GLAZE 330 5%	1/10W
R198	1-216-017-00	METAL GLAZE 47 5%	1/10W
R199	1-216-037-00	METAL GLAZE 330 5%	1/10W (KV-X2901D/X2901A/X2903E/X2901K)
	1-216-041-00	METAL GLAZE 470 5%	1/10W (KV-X2900B/X2901B)
R201	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W
R202	1-216-091-00	METAL GLAZE 56K 5%	1/10W
R203	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
R204	1-216-025-00	METAL GLAZE 100 5%	1/10W
R205	1-216-025-00	METAL GLAZE 100 5%	1/10W
R206	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R207	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R210	1-216-025-00	METAL GLAZE 100 5%	1/10W
R211	1-216-025-00	METAL GLAZE 100 5%	1/10W
R213	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W
R311	1-216-025-00	METAL GLAZE 100 5%	1/10W
R313	1-216-025-00	METAL GLAZE 100 5%	1/10W
R314	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R315	1-216-025-00	METAL GLAZE 100 5%	1/10W
R316	1-216-025-00	METAL GLAZE 100 5%	1/10W
R317	1-216-025-00	METAL GLAZE 100 5%	1/10W
R318	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R319	1-216-025-00	METAL GLAZE 100 5%	1/10W
R320	1-216-025-00	METAL GLAZE 100 5%	1/10W
R321	1-216-025-00	METAL GLAZE 100 5%	1/10W
R322	1-216-085-00	METAL GLAZE 33K 5%	1/10W
R323	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R325	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R326	1-216-077-00	METAL GLAZE 15K 5%	1/10W
R327	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R328	1-216-295-00	METAL GLAZE 0 5%	1/10W

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R329	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R437	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R330	1-216-295-00	METAL GLAZE	0 5% 1/10W	R438	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R331	1-216-295-00	METAL GLAZE	0 5% 1/10W	R439	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R332	1-216-295-00	METAL GLAZE	0 5% 1/10W	R440	1-216-025-00	METAL GLAZE	100 5% 1/10W
R333	1-216-689-11	METAL CHIP	39K 0.50% 1/10W	R441	1-216-022-00	METAL GLAZE	75 5% 1/10W
R340	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R442	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W
R341	1-216-083-00	METAL GLAZE	27K 5% 1/10W	R443	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R342	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R444	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W
R352	1-216-123-11	METAL GLAZE	1.2M 5% 1/10W	R445	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R354	1-216-025-00	METAL GLAZE	100 5% 1/10W	R446	1-216-025-00	METAL GLAZE	100 5% 1/10W
R355	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R447	1-216-025-00	METAL GLAZE	100 5% 1/10W
R356	1-216-025-00	METAL GLAZE	100 5% 1/10W	R448	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R364	1-216-041-00	METAL GLAZE	470 5% 1/10W	R449	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R365	1-216-025-00	METAL GLAZE	100 5% 1/10W	R454	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R370	1-216-033-00	METAL GLAZE	220 5% 1/10W	R458	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R371	1-216-033-00	METAL GLAZE	220 5% 1/10W	R461	1-216-022-00	METAL GLAZE	75 5% 1/10W
R372	1-216-033-00	METAL GLAZE	220 5% 1/10W	R464	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R373	1-216-041-00	METAL GLAZE	470 5% 1/10W	R465	1-216-025-00	METAL GLAZE	100 5% 1/10W
R380	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R466	1-216-041-00	METAL GLAZE	470 5% 1/10W
R381	1-216-025-00	METAL GLAZE	100 5% 1/10W	R473	1-216-022-00	METAL GLAZE	75 5% 1/10W
R382	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R474	1-216-009-00	METAL GLAZE	22 5% 1/10W
R383	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R482	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R384	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R483	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W
R385	1-216-049-00	METAL GLAZE	1K 5% 1/10W	< R1001 - R1028 FITTED ON > <KV-X2901D/X2901A/X2901B/X2903E> <X2902U/X2902L/X2901K>			
R386	1-216-023-00	METAL GLAZE	82 5% 1/10W	R1001	1-216-295-00	METAL GLAZE	0 5% 1/10W
R387	1-216-023-00	METAL GLAZE	82 5% 1/10W	R1002	1-216-025-00	METAL GLAZE	100 5% 1/10W
R388	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1004	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R389	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1005	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R390	1-216-109-00	METAL GLAZE	330K 5% 1/10W	R1008	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R392	1-216-091-00	METAL GLAZE	56K 5% 1/10W	R1009	1-216-025-00	METAL GLAZE	100 5% 1/10W
R393	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R1010	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R401	1-216-039-00	METAL GLAZE	390 5% 1/10W	R1011	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R402	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R1012	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R403	1-216-039-00	METAL GLAZE	390 5% 1/10W	R1014	1-216-025-00	METAL GLAZE	100 5% 1/10W
R404	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R1015	1-216-025-00	METAL GLAZE	100 5% 1/10W
R405	1-216-039-00	METAL GLAZE	390 5% 1/10W	R1016	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R406	1-216-039-00	METAL GLAZE	390 5% 1/10W	R1019	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R408	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R1020	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R409	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R1021	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R410	1-216-025-00	METAL GLAZE	100 5% 1/10W	R1023	1-216-023-00	METAL GLAZE	82 5% 1/10W
R413	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1024	1-216-023-00	METAL GLAZE	82 5% 1/10W
R415	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R1025	1-216-035-00	METAL GLAZE	270 5% 1/10W
R417	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1026	1-216-035-00	METAL GLAZE	270 5% 1/10W
R419	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R1027	1-216-035-00	METAL GLAZE	270 5% 1/10W
R420	1-216-009-00	METAL GLAZE	22 5% 1/10W	R1028	1-216-023-00	METAL GLAZE	82 5% 1/10W
R421	1-216-113-00	METAL GLAZE	470K 5% 1/10W	< R1101 - R1118 FITTED ON > <KV-X2903E/X2902U/X2902L>			
R422	1-216-022-00	METAL GLAZE	75 5% 1/10W	R1101	1-216-025-00	METAL GLAZE	100 5% 1/10W
R423	1-216-093-00	METAL GLAZE	68K 5% 1/10W	R1102	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R424	1-216-113-00	METAL GLAZE	470K 5% 1/10W	R1103	1-220-149-11	METAL GLAZE	2.2 10% 1/2W
R425	1-216-022-00	METAL GLAZE	75 5% 1/10W	R1104	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R426	1-216-025-00	METAL GLAZE	100 5% 1/10W	R1105	1-216-037-00	METAL GLAZE	330 5% 1/10W
R427	1-216-188-00	METAL GLAZE	390 5% 1/8W	R1106	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R429	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R1107	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R430	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R1108	1-216-121-00	METAL GLAZE	1M 5% 1/10W
R431	1-216-188-00	METAL GLAZE	390 5% 1/8W	R1109	1-216-121-00	METAL GLAZE	1M 5% 1/10W
R432	1-216-039-00	METAL GLAZE	390 5% 1/10W	R1110	1-220-238-11	METAL GLAZE	10 5% 1/4W
R433	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W				
R434	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R435	1-216-039-00	METAL GLAZE	390 5% 1/10W				
R436	1-216-022-00	METAL GLAZE	75 5% 1/10W				

A

C

Components identified by
shading and marked Δ are critical
for safety.
Replace only with the part number
specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
R1111	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1112	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1113	1-216-117-00	METAL GLAZE 680K 5% 1/10W	
R1114	1-216-158-00	METAL GLAZE 22 5% 1/8W	
R1115	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R1116	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R1117	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1118	1-220-149-11	METAL GLAZE 2.2 10% 1/2W	
< VARIABLE RESISTOR >			
RV102	1-241-765-11	RES, ADJ, CARBON 22K (KV-X2900B/X2901B)	
< RESISTOR NETWORK >			
RA1	1-236-908-11	RESISTOR, NETWORK (CHIP TYPE)	
RA2	1-236-908-11	RESISTOR, NETWORK (CHIP TYPE)	
RA3	1-236-908-11	RESISTOR, NETWORK (CHIP TYPE)	
RA7	1-236-908-11	RESISTOR, NETWORK (CHIP TYPE)	
RA8	1-239-412-11	NETWORK, RESISTOR (CHIP TYPE)	
RA9	1-239-412-11	NETWORK, RESISTOR (CHIP TYPE)	
RA10	1-236-908-11	RESISTOR, NETWORK (CHIP TYPE)	
RA11	1-236-904-11	RESISTOR, NETWORK (CHIP TYPE)	
< TUNER >			
TU101	1-693-185-11	TUNER UV-916H (KV-X2901D/X2901A/X2900B/X2901B X2903E/X2902L/X2901K)	
	1-693-184-11	TUNER UV944C (KV-X2902U)	
< CRYSTAL >			
X2	1-579-063-21	VIBRATOR, CERAMIC	
X301	1-760-331-11	VIBRATOR, CRYSTAL	
X1001	1-567-495-11	OSCILLATOR, CRYSTAL (KV-X2901D/X2901A/X2901B X2903E/X2902U/X2902L/X2901K)	
X1101	1-579-689-21	VIBRATOR, CRYSTAL (KV-X2903E/X2902U/X2902L)	

*A-1638-046-A C BOARD, COMPLETE			

< CAPACITOR >			
C702	1-102-824-00	CERAMIC 470PF 5% 50V	
C703	1-102-824-00	CERAMIC 470PF 5% 50V	
C704	1-102-116-00	CERAMIC 680PF 10% 50V	
C706	1-102-116-00	CERAMIC 680PF 10% 50V	
C707	1-162-116-00	CERAMIC 680PF 10% 2KV	
C708	1-162-114-00	CERAMIC 0.0047MF 2KV	
C709	1-102-116-00	CERAMIC 680PF 10% 50V	
C710	1-123-947-00	ELECT 10MF 20% 250V	
C712	1-102-824-00	CERAMIC 470PF 5% 50V	
C714	1-124-360-00	ELECT 1000MF 20% 16V	
C717	1-102-114-00	CERAMIC 470PF 10% 50V	
C718	1-102-114-00	CERAMIC 470PF 10% 50V	
C719	1-102-114-00	CERAMIC 470PF 10% 50V	
< CONNECTOR >			
CN702	1-695-915-11	TAB (CONTACT)	
CN703	*1-568-882-51	PIN, CONNECTOR 7P	

REF.NO.	PART NO.	DESCRIPTION	REMARK
< DIODE >			
D701	8-719-110-14	DIODE RD9.1ESB3	
D702	8-719-901-33	DIODE 1SS133	
D706	8-719-901-33	DIODE 1SS133	
D707	8-719-901-33	DIODE 1SS133	
D708	8-719-901-33	DIODE 1SS133	
D709	8-719-901-33	DIODE 1SS133	
D710	8-719-901-33	DIODE 1SS133	
D711	8-719-302-43	DIODE EL1Z	
D713	8-719-901-33	DIODE 1SS133	
< JACK >			
J701	Δ 1-526-990-21	SOCKET, CRT	
< COIL >			
L704	1-408-609-41	INDUCTOR 33UH	
< TRANSISTOR >			
Q702	8-729-173-38	TRANSISTOR 2SA733-K	
Q703	8-729-906-70	TRANSISTOR BF871	
Q704	8-729-200-17	TRANSISTOR 2SA1091-O	
Q705	8-729-173-38	TRANSISTOR 2SA733-K	
Q706	8-729-906-70	TRANSISTOR BF871	
Q707	8-729-200-17	TRANSISTOR 2SA1091-O	
Q708	8-729-173-38	TRANSISTOR 2SA733-K	
Q709	8-729-906-70	TRANSISTOR BF871	
Q710	8-729-200-17	TRANSISTOR 2SA1091-O	
< RESISTOR >			
R704	1-216-486-00	METAL OXIDE 8.2K 5% 3W F	
R705	1-202-824-00	SOLID 3.3K 10% 1/2W	
R706	1-249-409-11	CARBON 220 5% 1/4W	
R707	1-249-408-11	CARBON 180 5% 1/4W	
R708	1-249-399-11	CARBON 33 5% 1/4W	
R709	1-202-844-00	SOLID 330K 10% 1/2W	
R711	1-249-423-11	CARBON 3.3K 5% 1/4W	
R712	1-202-824-00	SOLID 3.3K 10% 1/2W	
R714	1-216-486-00	METAL OXIDE 8.2K 5% 3W F	
R715	1-249-417-11	CARBON 1K 5% 1/4W	
R716	1-249-409-11	CARBON 220 5% 1/4W	
R717	1-249-408-11	CARBON 180 5% 1/4W	
R718	1-202-814-11	SOLID 33K 10% 1/2W	
R719	1-249-399-11	CARBON 33 5% 1/4W	
R720	1-249-423-11	CARBON 3.3K 5% 1/4W	
R722	1-202-848-00	SOLID 680K 10% 1/2W	
R723	1-249-417-11	CARBON 1K 5% 1/4W	
R724	1-202-846-00	SOLID 470K 10% 1/2W	
R726	1-202-824-00	SOLID 3.3K 10% 1/2W	
R727	1-249-409-11	CARBON 220 5% 1/4W	
R728	1-216-350-11	METAL OXIDE 1.2 5% 1W F	
R729	1-249-408-11	CARBON 180 5% 1/4W	
R730	1-249-399-11	CARBON 33 5% 1/4W	
R731	1-249-423-11	CARBON 3.3K 5% 1/4W	
R734	1-247-807-31	CARBON 100 5% 1/4W	
R736	1-216-486-00	METAL OXIDE 8.2K 5% 3W F	
R739	1-249-417-11	CARBON 1K 5% 1/4W	
R743	1-202-842-11	SOLID 220K 10% 1/2W	

The components identified by shading and marked Δ are critical for safety.
Replace only with the part number specified.



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
< VARIABLE RESISTOR >				C632	1-124-120-11	ELECT	220MF 20% 25V
RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M		C633 Δ	1-107-564-11	FILM	0.22MF 20% 300V
RV702	1-241-656-11	RES, ADJ, METAL FILM 110M		C634 Δ	1-107-564-11	FILM	0.22MF 20% 300V
*****				C635 Δ	1-107-564-11	FILM	0.22MF 20% 300V
*A-1642-115-A D BOARD, COMPLETE				C636 Δ	1-164-246-51	CERAMIC	0.0022MF 20% 400V
*****				C639	1-136-165-00	FILM	0.1MF 5% 50V
4-201-023-01	SPACER, INSULATING			C640	1-106-220-00	MYLAR	0.1MF 10% 100V
4-202-373-01	SPRING, IC			C800	1-137-431-11	FILM	560PF 5% 50V
4-812-134-00	RIVET NYLON, 3.5			C801	1-136-153-00	FILM	0.01MF 5% 50V
< CAPACITOR >				C804	1-136-165-00	FILM	0.1MF 5% 50V
C502	1-102-824-00	CERAMIC	470PF 5% 50V	C805	1-106-395-00	MYLAR	0.15MF 10% 200V
C503	1-136-165-00	FILM	0.1MF 5% 50V	C806	1-108-704-11	MYLAR	0.1MF 10% 200V
C504	1-102-824-00	CERAMIC	470PF 5% 50V	C807	1-136-540-11	FILM	0.82MF 5% 200V
C506	1-124-480-11	ELECT	470MF 20% 25V	C810	1-123-944-00	ELECT	2.2MF 20% 250V
C507	1-124-767-00	ELECT	2.2MF 20% 50V	C811	1-102-212-00	CERAMIC	820PF 10% 500V
C509	1-136-165-00	FILM	0.1MF 5% 50V	C812	1-136-112-00	FILM	1.4MF 5% 200V
C510	1-124-911-11	ELECT	220MF 20% 50V	C813	1-129-722-00	FILM	0.047MF 10% 630V
C511	1-136-202-11	FILM	0.33MF 5% 63V	C814	1-136-591-11	FILM	0.017MF 3% 1.4KV
C513	1-106-228-00	MYLAR	0.22MF 10% 100V	C815	1-136-562-11	MYLAR	0.0082MF 10% 400V
C514	1-136-165-00	FILM	0.1MF 5% 50V	C816	1-161-754-00	CERAMIC	0.001MF 10% 2KV
C515	1-124-480-11	ELECT	470MF 20% 25V	C817	1-161-754-00	CERAMIC	0.001MF 10% 2KV
C517	1-124-480-11	ELECT	470MF 20% 25V	C818	1-162-134-11	CERAMIC	470PF 10% 2KV
C518	1-102-228-00	CERAMIC	470PF 10% 500V	C819	1-136-208-11	FILM	0.068MF 10% 250V
C519	1-102-228-00	CERAMIC	470PF 10% 500V	C820	1-102-114-00	CERAMIC	470PF 10% 50V
C520	1-124-480-11	ELECT	470MF 20% 25V	C821	1-162-114-00	CERAMIC	0.0047MF 2KV
C521	1-124-006-11	ELECT	10MF 20% 25V	C822	1-123-948-00	ELECT	22MF 20% 250V
C522	1-124-907-11	ELECT	10MF 20% 50V	C824	1-123-024-21	ELECT	33MF 160V
C600 Δ	1-161-742-00	CERAMIC	0.0022MF 20% 400V	C829	1-124-902-00	ELECT	0.47MF 20% 50V
C601 Δ	1-161-964-91	CERAMIC	0.0047MF 250V	C830	1-124-927-11	ELECT	4.7MF 20% 50V
C602 Δ	1-161-964-91	CERAMIC	0.0047MF 250V	C832	1-124-903-11	ELECT	1MF 20% 50V
C603	1-125-318-00	ELECT (BLOCK)	220MF 20% 400V	C834	1-126-233-11	ELECT	22MF 20% 25V
C604	1-124-122-11	ELECT	100MF 20% 50V	C835	1-162-318-11	CERAMIC	0.001MF 10% 500V
C605	1-124-667-11	ELECT	10MF 20% 100V	C836	1-162-117-00	CERAMIC	100PF 10% 500V
C606	1-162-318-11	CERAMIC	0.001MF 10% 500V	C906	1-124-910-11	ELECT	47MF 20% 50V
C607	1-124-120-11	ELECT	220MF 20% 25V	C908	1-124-910-11	ELECT	47MF 20% 50V
C608	0-551-803-10	CAP, 1500PF		C909	1-124-903-11	ELECT	1MF 20% 50V
C611	1-102-228-00	CERAMIC	470PF 10% 500V	C910	1-137-393-91	FILM	0.01MF 5% 100V
C612	1-104-799-11	ELECT	22MF 20% 100V	C1200	1-136-165-00	FILM	0.1MF 5% 50V
C613	1-124-347-00	ELECT	100MF 20% 160V	C1201	1-136-165-00	FILM	0.1MF 5% 50V
C614	1-126-804-11	ELECT	100MF 20% 25V	C1202	1-136-165-00	FILM	0.1MF 5% 50V
C615	1-126-376-11	ELECT	470MF 20% 25V	C1203	1-136-169-00	FILM	0.22MF 5% 50V
C616	1-128-386-11	ELECT	1000MF 20% 25V	C1204	1-136-169-00	FILM	0.22MF 5% 50V
C617	1-124-556-11	ELECT	2200MF 20% 16V	C1205	1-101-005-00	CERAMIC	0.022MF 50V
C618	1-136-165-00	FILM	0.1MF 5% 50V	C1206	1-101-005-00	CERAMIC	0.022MF 50V
C619	1-102-228-00	CERAMIC	470PF 10% 500V	C1207	1-126-101-11	ELECT	100MF 20% 16V
C620	1-102-228-00	CERAMIC	470PF 10% 500V	C1208	1-124-927-11	ELECT	4.7MF 20% 50V
C621	1-136-165-00	FILM	0.1MF 5% 50V	C1209	1-124-927-11	ELECT	4.7MF 20% 50V
C622	1-124-790-11	ELECT	0.47MF 20% 100V	C1210	1-124-925-11	ELECT	2.2MF 20% 50V
C623	1-124-120-11	ELECT	220MF 20% 25V	C1211	1-124-925-11	ELECT	2.2MF 20% 50V
C624	1-136-165-00	FILM	0.1MF 5% 50V	C1212	1-137-387-11	FILM	0.001MF 5% 100V
C625	1-124-910-11	ELECT	47MF 20% 50V	C1213	1-137-387-11	FILM	0.001MF 5% 100V
C626	1-124-120-11	ELECT	220MF 20% 25V	C1214	1-126-101-11	ELECT	100MF 20% 16V
C627	1-124-120-11	ELECT	220MF 20% 25V	C1215	1-136-173-00	FILM	0.47MF 5% 50V
C628	1-124-907-11	ELECT	10MF 20% 50V	C1216	1-137-366-11	FILM	0.0022MF 5% 50V
C629	1-126-800-51	ELECT	2200MF 20% 35V	C1217	1-137-366-11	FILM	0.0022MF 5% 50V
C630	1-126-800-51	ELECT	2200MF 20% 35V	C1218	1-124-120-11	ELECT	220MF 20% 16V
C631	1-124-916-11	ELECT	22MF 20% 50V	< CONNECTOR >			
				CN600 Δ	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
				CN601 Δ	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	

The components identified by shading and marked Δ are critical for safety.
Replace only with the part number specified.

D

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
CN602 Δ	*1-695-292-11	PIN, CONNECTOR (POWER)		< FERRITE BEAD >			
CN800	*1-580-798-11	CONNECTOR PIN (DY) 6P		FB600	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
CN803	1-695-915-11	TAB (CONTACT)		FB601	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
CN804	1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P		FB602	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
CN807	1-568-878-51	PIN, CONNECTOR 3P		FB604	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
CN901	*1-564-519-11	PLUG, CONNECTOR 4P		FB605	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
CN902	1-695-299-11	CONNECTOR, BOARD TO BOARD 50P		FB606	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
CN1200	*1-568-879-11	PIN, CONNECTOR 4P		< IC >			
CN1201	*1-568-878-51	PIN, CONNECTOR 3P		IC500	8-759-192-71	IC STV9379	
< DIODE >				IC600	8-759-183-88	IC STR-S6708	
D500	8-719-109-85	DIODE RD5.1ESB2		IC601 Δ	8-749-924-93	IC TLP621GR	
D502	8-719-979-85	DIODE EGP20G		IC602	8-749-923-26	IC SE135N-LF12	
D503	8-719-979-85	DIODE EGP20G		IC603	8-759-013-06	IC MC7805CT	
D504	8-719-901-33	DIODE 1SS133		IC604	8-759-250-63	IC TL750L05CLP	
D505	8-719-982-03	DIODE MTZJ-3.6A		IC605	8-759-701-79	IC NJM7812FA	
D506	8-719-901-33	DIODE 1SS133		IC606	8-759-267-25	IC LM2940T-90	
D507	8-719-109-85	DIODE RD5.1ESB2		IC800	8-759-103-93	IC UPC393C	
D600	8-719-510-53	DIODE D4SB60L		IC1200	8-759-250-68	IC TDA7264	
D601	8-719-046-77	DIODE EM1-V1		IC1201	8-759-502-21	IC TDA2822M	
D603	8-719-109-97	DIODE RD6.8ESB2		< COIL >			
D604	8-719-046-75	DIODE EU-1-V1		L502	1-412-519-11	INDUCTOR 3.3UH	
D605	8-719-312-61	DIODE EU-1Z		L503	1-412-519-11	INDUCTOR 3.3UH	
D606	8-719-312-61	DIODE EU-1Z		L609	1-412-533-21	INDUCTOR 47UH	
D607	8-719-046-78	DIODE EG-1Z-V1		L611	1-412-533-21	INDUCTOR 47UH	
D608	8-719-046-75	DIODE EU-1-V1		L612	1-414-415-11	INDUCTOR 0UH	
D609	8-719-301-64	DIODE RU4DS		L613	1-414-415-11	INDUCTOR 0UH	
D610	8-719-046-74	DIODE AU-01Z-V1		L800	1-459-087-00	COIL, HCC DUST CORE 3.9MMH	
D611	8-719-302-43	DIODE EL1Z		L801	1-459-111-00	COIL, DRAM CORE (CDI)	
D612	8-719-046-76	DIODE RU-3YX-V1		L802	1-459-104-00	COIL, WITH CORE	
D613	8-719-302-43	DIODE EL1Z		L803	1-420-872-00	COIL, AIR CORE	
D614	8-719-302-43	DIODE EL1Z		L804	1-459-907-11	COIL, HORIZONTAL LINEARITY	
D615	8-719-046-75	DIODE EU-1-V1		L805	1-412-552-31	INDUCTOR 2.2MMH	
D616	8-719-110-03	DIODE RD7.5ESB2		L806	1-412-519-11	INDUCTOR 3.3UH	
D617	8-719-901-33	DIODE 1SS133		L809	1-412-533-21	INDUCTOR 47UH	
D618	8-719-901-33	DIODE 1SS133		< IC LINK >			
D619	8-719-901-33	DIODE 1SS133		PS600 Δ	1-532-686-21	LINK, IC 2.7A (ICP-F75)	
D620	8-719-901-33	DIODE 1SS133		PS601 Δ	1-532-686-21	LINK, IC 2.7A (ICP-F75)	
D622	8-719-921-69	DIODE MTZJ-9.1		PS602 Δ	1-532-686-21	LINK, IC 2.7A (ICP-F75)	
D625	8-719-901-33	DIODE 1SS133		PS603 Δ	1-532-686-21	LINK, IC 2.7A (ICP-F75)	
D626	8-719-046-74	DIODE AU-01Z-V1		PS801 Δ	1-532-605-21	LINK, IC 0.4A (ICP-F10)	
D800	8-719-901-33	DIODE 1SS133		< TRANSISTOR >			
D801	8-719-901-33	DIODE 1SS133		Q501	8-729-119-78	TRANSISTOR JC501-Q-AMMO	
D802	8-719-901-33	DIODE 1SS133		Q502	8-729-173-38	TRANSISTOR 2SA733-K	
D803	8-719-908-03	DIODE GP08D		Q503	8-729-900-89	TRANSISTOR DTC144ES	
D807	8-719-302-43	DIODE EL1Z		Q601	8-729-025-05	TRANSISTOR 2SC3852A-0	
D808	8-719-908-03	DIODE GP08D		Q602	8-729-320-28	TRANSISTOR 2SA1667	
D809	8-719-018-82	DIODE RGP02-20EL-6394		Q603	8-729-024-35	TRANSISTOR 2SC2808STP-R	
D810	8-719-302-43	DIODE EL1Z		Q604	8-729-024-35	TRANSISTOR 2SC2808STP-R	
D812	8-719-945-80	DIODE ERC06-15S		Q605	8-729-119-78	TRANSISTOR JC501-Q-AMMO	
D813	8-719-945-80	DIODE ERC06-15S		Q606	8-729-900-65	TRANSISTOR DTA144ES	
D814	8-719-900-26	DIODE ERD29-08J		Q607	8-729-119-78	TRANSISTOR JC501-Q-AMMO	
D815	8-719-908-03	DIODE GP08D		Q800	8-729-119-78	TRANSISTOR JC501-Q-AMMO	
D817	8-719-109-89	DIODE RD5.6ESB2		Q801	8-729-017-06	TRANSISTOR 2SC4793	
D902	8-719-921-69	DIODE MTZJ-9.1		Q802	8-729-016-32	TRANSISTOR 2SC4927-01	
D903	8-719-921-69	DIODE MTZJ-9.1		Q803	8-729-119-80	TRANSISTOR 2SC2688-LK	
D904	8-719-921-69	DIODE MTZJ-9.1		Q805	8-729-900-89	TRANSISTOR DTC144ES	
D905	8-719-921-69	DIODE MTZJ-9.1					
D906	8-719-921-69	DIODE MTZJ-9.1					

The components identified by shading and marked Δ are critical for safety.
Replace only with the part number specified.

D

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1200	8-729-119-78	TRANSISTOR JC501-Q-AMMO		R643	1-249-423-11	CARBON 3.3K 5%	1/4W
	< RESISTOR >			R644	1-260-087-11	CARBON 100 5%	1/2W
R500	1-215-457-00	METAL 33K 1%	1/4W	R645	1-249-422-11	CARBON 2.7K 5%	1/4W
R502	1-249-421-11	CARBON 2.2K 5%	1/4W	R646	1-249-377-11	CARBON 0.47 5%	1/4W F
R503	1-249-429-11	CARBON 10K 5%	1/4W	R647	1-202-933-61	FUSIBLE 0.1 10%	1/2W F
R504	1-215-459-00	METAL 39K 1%	1/4W	R648	1-216-397-11	METAL OXIDE 4.7 5%	3W F
R505	1-249-382-11	CARBON 1.2 5%	1/4W F	R800	1-249-421-11	CARBON 2.2K 5%	1/4W
				R801	1-249-429-11	CARBON 10K 5%	1/4W
R506	1-215-447-00	METAL 12K 1%	1/4W	R802	1-249-431-11	CARBON 15K 5%	1/4W
R507	1-215-887-00	METAL OXIDE 150 5%	2W F	R803	1-249-423-11	CARBON 3.3K 5%	1/4W
R508	1-216-371-00	METAL OXIDE 1.5 5%	2W F	R804	1-249-430-11	CARBON 12K 5%	1/4W
R509	1-249-443-11	CARBON 0.47 5%	1/4W F	R805	1-249-425-11	CARBON 4.7K 5%	1/4W
R510	1-249-443-11	CARBON 0.47 5%	1/4W F	R812	1-249-421-11	CARBON 2.2K 5%	1/4W
				R813	1-215-867-00	METAL OXIDE 470 5%	1W F
R517	1-215-427-00	METAL 1.8K 1%	1/4W	R814	1-249-411-11	CARBON 330 5%	1/4W
R518	1-215-427-00	METAL 1.8K 1%	1/4W	R816	1-216-481-21	METAL OXIDE 1.2K 5%	3W F
R520	1-215-457-00	METAL 33K 1%	1/4W	R817	1-216-481-21	METAL OXIDE 1.2K 5%	3W F
R521	1-215-461-00	METAL 47K 1%	1/4W	R818	1-215-882-00	METAL OXIDE 22 5%	2W F
R522	1-249-433-11	CARBON 22K 5%	1/4W				
R523	1-249-433-11	CARBON 22K 5%	1/4W	R819	1-216-345-11	METAL OXIDE 0.47 5%	1W F
R524	1-249-425-11	CARBON 4.7K 5%	1/4W	R820	1-249-403-11	CARBON 68 5%	1/4W
R525	1-249-425-11	CARBON 4.7K 5%	1/4W	R821	1-215-884-11	METAL OXIDE 47 5%	2W F
R526	1-249-421-11	CARBON 2.2K 5%	1/4W	R822	1-215-868-00	METAL OXIDE 680 5%	1W F
R527	1-215-430-00	METAL 2.4K 1%	1/4W	R824	1-249-420-11	CARBON 1.8K 5%	1/4W
				R826	1-247-752-11	CARBON 1K 5%	1/2W
R600	1-216-490-11	METAL OXIDE 39K 5%	3W F	R827	1-249-425-11	CARBON 4.7K 5%	1/4W
R601	1-249-417-11	CARBON 1K 5%	1/4W	R828	1-249-427-11	CARBON 6.8K 5%	1/4W
R603	1-249-429-11	CARBON 10K 5%	1/4W	R829	1-249-493-11	CARBON 56K 5%	1/2W
R604	1-249-420-11	CARBON 1.8K 5%	1/4W	R830	1-217-778-11	FUSIBLE 1K 5%	1W F
R605	1-216-362-11	METAL OXIDE 0.27 5%	2W F				
R607	1-216-421-11	METAL OXIDE 12 5%	1W F	R833	1-249-421-11	CARBON 2.2K 5%	1/4W F
R608	1-216-365-00	METAL OXIDE 0.47 5%	2W F	R836	1-249-439-11	CARBON 68K 5%	1/4W
R610	1-249-417-11	CARBON 1K 5%	1/4W	R837	1-249-431-11	CARBON 15K 5%	1/4W
R611	1-215-859-00	METAL OXIDE 22 5%	1W F	R840	1-247-807-31	CARBON 100 5%	1/4W
R612	1-249-428-11	CARBON 8.2K 5%	1/4W	R841	1-249-418-11	CARBON 1.2K 5%	1/4W
				R842	1-249-441-11	CARBON 100K 5%	1/4W
R613	1-249-417-11	CARBON 1K 5%	1/4W	R843	1-247-893-11	CARBON 390K 5%	1/4W
R614	1-249-429-11	CARBON 10K 5%	1/4W	R846	1-249-441-11	CARBON 100K 5%	1/4W
R615	1-249-435-11	CARBON 33K 5%	1/4W	R847	1-247-891-00	CARBON 330K 5%	1/4W
R616	1-215-477-00	METAL 220K 1%	1/4W	R848	1-247-887-00	CARBON 220K 5%	1/4W
R617	1-215-901-00	METAL OXIDE 33K 5%	2W F				
R618	1-249-429-11	CARBON 10K 5%	1/4W	R849	1-249-429-11	CARBON 10K 5%	1/4W
R619	1-216-425-21	METAL OXIDE 56 5%	1W F	R850	1-249-425-11	CARBON 4.7K 5%	1/4W
R620	1-247-895-00	CARBON 470K 5%	1/4W	R851	1-247-764-11	CARBON 10K 5%	1/2W F
R621	1-216-425-21	METAL OXIDE 56 5%	1W F	R852	1-249-432-11	CARBON 18K 5%	1/4W
R622	1-249-437-11	CARBON 47K 5%	1/4W	R901	1-202-539-00	SOLID 39 10%	1/2W
R623	1-249-429-11	CARBON 10K 5%	1/4W	R902	1-202-539-00	SOLID 39 10%	1/2W
R624	1-249-405-11	CARBON 100 5%	1/4W F	R907	1-247-804-11	CARBON 75 5%	1/4W
R625	1-249-434-11	CARBON 27K 5%	1/4W	R916	1-249-397-11	CARBON 22 5%	1/4W
R626	1-249-430-11	CARBON 12K 5%	1/4W	R917	1-249-397-11	CARBON 22 5%	1/4W
R628	1-249-415-11	CARBON 680 5%	1/4W F	R1200	1-249-429-11	CARBON 10K 5%	1/4W
R629	Δ 1-244-945-91	CARBON 1M 5%	1/2W	R1201	1-249-434-11	CARBON 27K 5%	1/4W
R630	Δ 1-218-265-11	METAL GLAZE 8.2M 5%	1W	R1202	1-249-393-11	CARBON 10 5%	1/4W F
R631	Δ 1-205-949-11	WIREWOUND 1.8 5%	10W	R1203	1-249-421-11	CARBON 2.2K 5%	1/4W
R634	1-249-397-11	CARBON 22 5%	1/4W F	R1204	1-249-421-11	CARBON 2.2K 5%	1/4W
R635	1-249-437-11	CARBON 47K 5%	1/4W	R1205	1-249-428-11	CARBON 8.2K 5%	1/4W
R636	1-249-417-11	CARBON 1K 5%	1/4W	R1206	1-249-428-11	CARBON 8.2K 5%	1/4W
R637	1-249-409-11	CARBON 220 5%	1/4W	R1207	1-249-417-11	CARBON 1K 5%	1/4W
R638	1-249-433-11	CARBON 22K 5%	1/4W	R1208	1-212-849-00	FUSIBLE 4.7 5%	1/4W F
R639	1-249-429-11	CARBON 10K 5%	1/4W	R1209	1-212-849-00	FUSIBLE 4.7 5%	1/4W F
R640	1-216-381-11	METAL OXIDE 0.22 5%	3W F	R1210	1-249-417-11	CARBON 1K 5%	1/4W
R641	1-216-381-11	METAL OXIDE 0.22 5%	3W F	R1211	1-249-424-11	CARBON 3.9K 5%	1/4W
R642	Δ 1-205-949-11	WIREWOUND 1.8 5%	10W	R1212	1-249-424-11	CARBON 3.9K 5%	1/4W



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REF.NO. PART NO. DESCRIPTION REMARK

R1213 1-249-425-11 CARBON 4.7K 5% 1/4W

< VARIABLE RESISTOR >

RV301 1-238-552-11 RES, ADJ, CARBON 470K

< RELAY >

RY600 **A** 1-515-720-31 RELAY

< SPARK GAP >

SG801 1-519-422-11 GAP, SPARK

< TRANSFORMER >

LF600 **A** 1-421-776-11 LFT

LF601 **A** 1-421-776-11 LFT

T601 **A** 1-426-805-11 TRANSFORMER, SRT

T800 1-424-545-11 TRANSFORMER, FERRITE (PMT)

T803 **A** 1-453-169-11 TRANSFORMER ASSY, FLYBACK (UX-1604A2)

T804 1-437-090-00 HDT

< THERMISTOR >

THP600 **A** 1-809-827-11 THERMISTOR, POSITIVE

*A-1644-028-A VM BOARD, COMPLETE

*4-368-683-21 SPRING, TRANSISTOR

< CAPACITOR >

C1701 1-124-119-00 ELECT 330MF 20% 16V
C1702 1-101-880-00 CERAMIC 47PF 5% 50V
C1703 1-102-115-00 CERAMIC 560PF 10% 50V
C1704 1-161-830-00 CERAMIC 0.0047MF 500V
C1705 1-124-120-11 ELECT 220MF 20% 16V

C1706 1-123-935-00 ELECT 33MF 20% 160V
C1707 1-124-907-11 ELECT 10MF 20% 50V
C1708 1-101-006-00 CERAMIC 0.047MF 50V
C1709 1-108-704-11 MYLAR 0.1MF 10% 200V
C1710 1-136-207-11 FILM 0.047MF 10% 250V

C1711 1-162-318-11 CERAMIC 0.001MF 10% 500V
C1712 1-124-799-11 ELECT 2.2MF 20% 160V
C1713 1-162-318-11 CERAMIC 0.001MF 10% 500V
C1714 1-136-207-11 FILM 0.047MF 10% 250V
C1716 1-124-907-11 ELECT 10MF 20% 50V

C1718 1-124-120-11 ELECT 220MF 20% 16V
C1719 1-124-927-11 ELECT 4.7MF 20% 50V

< CONNECTOR >

CN1819 *1-568-882-51 PIN, CONNECTOR 7P

< DIODE >

D1701 8-719-901-33 DIODE 1SS133
D1702 8-719-901-33 DIODE 1SS133
D1703 8-719-901-33 DIODE 1SS133
D1704 8-719-982-37 DIODE MTZJ-39C
D1705 8-719-982-37 DIODE MTZJ-39C

D1706 8-719-901-33 DIODE 1SS133
D1707 8-719-901-33 DIODE 1SS133

REF.NO. PART NO. DESCRIPTION REMARK

< COIL >

L1702 1-408-418-00 INDUCTOR 56UH

< TRANSISTOR >

Q1701 8-729-119-78 TRANSISTOR 2SC2785-HFE
Q1702 8-729-173-38 TRANSISTOR 2SA733-K
Q1703 8-729-017-05 TRANSISTOR 2SA1837
Q1704 8-729-119-78 TRANSISTOR 2SC2785-HFE
Q1705 8-729-017-06 TRANSISTOR 2SC4793

Q1706 8-729-119-78 TRANSISTOR 2SC2785-HFE
Q1707 8-729-140-96 TRANSISTOR 2SD774-34
Q1708 8-729-901-59 TRANSISTOR BF199
Q1709 8-729-255-12 TRANSISTOR 2SC2551-0

< RESISTOR >

R1701 1-247-807-31 CARBON 100 5% 1/4W
R1702 1-249-420-11 CARBON 1.8K 5% 1/4W
R1703 1-247-807-31 CARBON 100 5% 1/4W
R1704 1-249-420-11 CARBON 1.8K 5% 1/4W
R1705 1-247-736-11 CARBON 56 5% 1/2W F

R1706 1-249-414-11 CARBON 560 5% 1/4W F
R1707 1-249-412-11 CARBON 390 5% 1/4W
R1709 1-249-416-11 CARBON 820 5% 1/4W
R1710 1-249-385-11 CARBON 2.2 5% 1/4W F
R1711 1-249-432-11 CARBON 18K 5% 1/4W

R1712 1-249-435-11 CARBON 33K 5% 1/4W
R1713 1-249-438-11 CARBON 56K 5% 1/4W
R1714 1-249-429-11 CARBON 10K 5% 1/4W
R1715 1-216-476-11 METAL OXIDE 180 5% 3W F
R1716 1-249-417-11 CARBON 1K 5% 1/4W F

R1717 1-249-432-11 CARBON 18K 5% 1/4W
R1718 1-249-410-11 CARBON 270 5% 1/4W
R1719 1-249-419-11 CARBON 1.5K 5% 1/4W
R1720 1-249-441-11 CARBON 100K 5% 1/4W
R1721 1-249-414-11 CARBON 560 5% 1/4W

R1722 1-249-385-11 CARBON 2.2 5% 1/4W F
R1723 1-249-429-11 CARBON 10K 5% 1/4W
R1724 1-249-436-11 CARBON 39K 5% 1/4W
R1725 1-249-417-11 CARBON 1K 5% 1/4W
R1726 1-249-411-11 CARBON 330 5% 1/4W

R1727 1-249-402-11 CARBON 56 5% 1/4W F
R1729 1-216-451-11 METAL OXIDE 120 5% 2W F
R1731 1-249-420-11 CARBON 1.8K 5% 1/4W
R1732 1-249-426-11 CARBON 5.6K 5% 1/4W
R1734 1-249-419-11 CARBON 1.5K 5% 1/4W

*A-1646-057-A H1 BOARD, COMPLETE

< CAPACITOR >

C900 1-101-810-00 CERAMIC 100PF 5% 50V
C901 1-101-810-00 CERAMIC 100PF 5% 50V
C902 1-136-205-11 FILM 0.022MF 10% 40V
C903 1-136-205-11 FILM 0.022MF 10% 40V
C907 1-124-903-11 ELECT 1MF 20% 50V

< CONNECTOR >

CN900 1-568-678-11 TERMINAL BLOCK, S 3P

The components identified by shading and marked Δ are critical for safety.
Replace only with the part number specified.

H1

H2

H3

REF.NO.	PART NO.	DESCRIPTION	REMARK
< JACK >			
J900	1-562-837-11	JACK	
< COIL >			
L900	1-408-409-00	INDUCTOR	10UH
L901	1-408-409-00	INDUCTOR	10UH
< RESISTOR >			
R905	1-247-804-11	CARBON	75 5% 1/4W
R906	1-247-804-11	CARBON	75 5% 1/4W
R909	1-249-437-11	CARBON	47K 5% 1/4W
R910	1-249-437-11	CARBON	47K 5% 1/4W
R915	1-249-397-11	CARBON	22 5% 1/4W

*1-652-269-11 H2 BOARD

< CAPACITOR >			
C904	1-124-910-11	ELECT	47MF 20% 50V
C905	1-124-907-11	ELECT	10MF 20% 50V

< CONNECTOR >			
CN907	1-564-509-11	PLUG, CONNECTOR	6P

< DIODE >			
D901	8-719-948-60	DIODE SLR-54VR3	
	4-202-707-01	HOLDER, LED (D901)	

< IC >			
IC900	8-741-790-51	IC SBX1790-51	

< RESISTOR >			
R900	1-249-409-11	CARBON	220 5% 1/4W
R908	1-249-401-11	CARBON	47 5% 1/4W

*1-652-270-11 H3 BOARD

< RESISTOR >			
R911	1-249-423-11	CARBON	3.3K 5% 1/4W
R912	1-249-429-11	CARBON	10K 5% 1/4W
R913	1-249-423-11	CARBON	3.3K 5% 1/4W
R914	1-249-429-11	CARBON	10K 5% 1/4W

< SWITCH >			
S900	1-692-979-11	SWITCH, TACTILE	
S901	1-692-979-11	SWITCH, TACTILE	
S902	1-692-979-11	SWITCH, TACTILE	

REF.NO.	PART NO.	DESCRIPTION	REMARK
MISCELLANEOUS *****			
Δ	1-402-747-21	COIL, DEGAUSSING	
Δ	8-451-313-61	DEFLECTION YOLK Y29FXA	
	1-692-979-11	SPEAKER 7.5 x 13CM	
Δ	1-751-680-11	CORD POWER (WITH NOISE FILTER) (KV-X2901A/X2901D)	
Δ	1-590-460-11	CORD POWER (WITH CONNECTOR) (KV-X2900B/X2901B/X2903E/X2901K)	
Δ	1-590-762-11	CORD POWER (WITH PLUG) (KV-X2902L/X2902U)	
V901 Δ	8-733-831-05	PICTURE TUBE SD-191 (A68JYL61X)	

ACCESSORIES AND PACKING MATERIALS

4-202-699-11	MANUAL INSTRUCTION (GERMAN/ENGLISH/ DUTCH/GREEK)
4-202-699-41	MANUAL INSTRUCTION (ITALIAN)
4-202-699-51	MANUAL INSTRUCTION (FRENCH)
4-202-699-61	MANUAL INSTRUCTION (ENGLISH)
4-202-699-71	MANUAL INSTRUCTION (SPANISH)
4-202-699-81	MANUAL INSTRUCTION (GERMAN/DANISH/ FRENCH/NORWEGIAN) (DUTCH/PORTUGUESE/SWEDISH/FINNISH)
4-202-699-91	MANUAL INSTRUCTION (HUNGARIAN/CZECH/ POLISH/RUSSIAN) (BULGARIAN)

*1-692-979-11	BAG, PROTECTION
*1-692-979-11	CUSHION (UPPER) (ASSY)
*1-751-680-11	CUSHION (LOWER) (ASSY)
*1-590-762-11	INDIVIDUAL CARTON

REMOTE COMMANDER

1-467-706-11	COMMANDER (RM833)
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SERVICE MANUAL

BE-3B CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-X2901D	RM-833	AEP	SCC-G77B-A	KV-X2903E	RM-833	Spanish	SCC-G82B-A
KV-X2901A	RM-833	Italian	SCC-G81B-A	KV-X2902L	RM-833	IRISH	SCC-G83B-A
KV-X2900B	RM-833	French	SCC-G85B-A	KV-X2902U	RM-833	UK	SCC-G87B-A
KV-X2901B	RM-833	French	SCC-G84B-A	KV-X2901K	RM-833	OIRT	SCC-G86A-A

CORRECTION - 1

SUBJECT: CORRECTED SPECIFICATIONS

File this correction with the service manual

(See page 2)

Incorrect

ITEM	MODEL	Television System	Stereo System	Channel Coverage	Color System
AEP		B/G/H, D/K	GERMAN Stereo	PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69	PAL SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Italian		B/G/H, D/K	GERMAN Stereo	ITALIA VHF:A-H2 (C) UHF: 21-69 PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 D/K VHF:R01-R12 UHF:R21-R69	PAL SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
French		B/G/H, D/K, L, I	GERMAN Stereo	L VHF:F02-F10 UHF:F21-F60 CABLE:B-Q B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 I UHF:B21-B69	PAL SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Spanish		B/G/H, D/K	GERMAN/NICAM Stereo	PAL B/G VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69	PAL SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Irish		I	NICAM Stereo	VHF A-C, D-J, VHF 21-69 CABLE CHANNELS S1-S20 HYPERBAND S21-S41	PAL SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
UK		I	NICAM Stereo	UHF : B21-B69	PAL SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
OIRT		B/G/H, D/K	GERMAN Stereo	B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 D/K VHF:R01-R12 UHF:R21-R69	PAL SECAM NTSC4.43, NTSC3.58 (VIDEO IN)

Correct

ITEM	MODEL	Television System	Stereo System	Channel Coverage	Color System
AEP		B/G/H, D/K	GERMAN Stereo	PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69	PAL SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Italian		B/G/H	GERMAN Stereo	ITALIA VHF:A-H2 (C) UHF: 21-69 PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10	PAL NTSC4.43, NTSC3.58 (VIDEO IN)
French		B/G/H, L, I	KV-X2501B GERMAN Stereo KV-X2500B GERMAN/NICAM Stereo	L VHF:F02-F10 UHF:F21-F60 CABLE:B-Q B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 I UHF:B21-B69	PAL SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Spanish		B/G/H,	GERMAN/NICAM Stereo	PAL B/G VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69	PAL NTSC4.43, NTSC3.58 (VIDEO IN)
Irish		I	NICAM Stereo	VHF A-C, D-J, UHF 21-69 CABLE CHANNELS S1-S20 (C) HYPERBAND S21-S41	PAL NTSC4.43, NTSC3.58 (VIDEO IN)
UK		I	NICAM Stereo	UHF : B21-B69	PAL NTSC4.43, NTSC3.58 (VIDEO IN)
OIRT		B/G/H, D/K	GERMAN Stereo	B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 D/K VHF:R01-R12 UHF:R21-R69	PAL SECAM NTSC4.43, NTSC3.58 (VIDEO IN)



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Sony Corporation
Consumer A & V Products Company
TV & Display Products Div.

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SONY SERVICE MANUAL

BE-3B CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-X2901D	RM-833	AEP	SCC-G77B-A	KV-X2903E	RM-833	Spanish	SCC-G82B-A
KV-X2901A	RM-833	Italian	SCC-G81B-A	KV-X2902L	RM-833	IRISH	SCC-G83B-A
KV-X2900B	RM-833	French	SCC-G85B-A	KV-X2902U	RM-833	UK	SCC-G87B-A
KV-X2901B	RM-833	French	SCC-G84B-A	KV-X2901K	RM-833	OIRT	SCC-G86A-A

CORRECTION - 2

SUBJECT: CORRECTED PART NUMBERS

File this correction with the service manual

INTRODUCTION : 1. ALL MODELS.
2. ALL MODELS.
3. KV-X2901D/X2901A/X2900B/X2901B/X2903E/X2901K only.

 :Indicates corrected portion.

SECTION 6 EXPLODED VIEWS

6-2.PICTURE TUBE (See page 58)

Item 1

INCORRECT				CORRECT			
REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
53	4-386-710-11	CATCHER, PUSH		53	4-392-036-11	CATCHER, PUSH	

SECTION 6 EXPLODED VIEWS, SECTION 7 ELECTRICAL PARTS LIST

6-1 CHASSIS (See page 57), F1 BOARD (See page 59), H2/H3 boards (See page 71)

Item 2

INCORRECT				CORRECT			
REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
	*1-652-270-11	H3 BOARD *****			*A-1646-059-A	H3 BOARD, COMPLETE *****	
	*1-652-269-11	H2 BOARD *****			*A-1646-058-A	H2 BOARD, COMPLETE *****	
	*1-652-271-11	F1 BOARD *****			*A-1624-029-A	F1 BOARD, COMPLETE *****	

SECTION 7 ELECTRICAL PARTS LIST

A BOARD (See page 61)

Item 3

INCORRECT				CORRECT			
REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
CF101	0-550-400-00	EFCV 4045 A4		CF101	1-760-154-21	EFCV 4045 A4	
CF103	0-550-808-10	SFE 5.5MC2		CF103	1-760-106-21	SFE 5.5MC2	
CF106	0-550-809-10	SFE 5.75MC2		CF106	1-760-107-21	SFE 5.75MC2	



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